PROCEEDINGS OF THE
SOCIAL INDICATORS CONFERENCE

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SOCIAL INDICATORS CONFERENCE

1975

Edited panel discussions from the Social Indicators Conference, Edmonton, Canada, 29-31 May, 1975 organized by the Population Research Laboratory (Department of Sociology, University of Alberta) and the Alberta Bureau of Statistics and sponsored by the Canada Council.

March, 1977.

Gift Alberta Statistics Bureau

The views expressed in these Proceedings do not necessarily represent those of the Alberta Bureau of Statistics, the Population Research Laboratory or the Canada Council.

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FOREWORD

This volume includes the edited discussion sessions from the Social Indicators Conference held in Edmonton in 1975. The primary objective of this conference was to provide a forum for the discussion of issues surrounding the conceptualization and development of social indicators. Conference participants comprised a diverse group of administrators and researchers from the academic, government and private sectors in Canada and the United States. The widely differing theoretical and political orientations of discussants were reflected in these sessions.

It is hoped that these edited discussions capture the substance of the 11 sessions. Initial transcriptions of the taped sessions varied between 30 and 50 pages in length while the edited versions vary between 10 and 22 pages. Although much of the omitted material resulted from editorial decisions, additional abridgment was dictated by the poor technical quality of several of the tape recordings.

For editorial convenience, discussion comments have not been linked with individual names. Comments have been arranged in a point format with major headings indicating shifts in the focus of discussion while sub-headings differentiate separate, but related, comments.

Organization of the Conference was undertaken by David Brusegard of the Alberta Bureau of Statistics and P. Krishnan of the Sociology Department, University of Alberta. Acknowledgment is due

the participants in the panel sessions and the ABS office staff for transcribing and arranging the printing of this volume.

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SESSION I: SOCIAL INDICATORS AND SOCIAL POLICY I

CHAIRMAN

Nancy Carmichael, SSRC (USA)

PANEL

Brian Wharf, University of Victoria
David Henderson, Economic Council of Canada
David Brusegard, Alberta Bureau of Statistics

SESSION I: SOCIAL INDICATORS AND SOCIAL POLICY I

1.0 Social indicators represent an attempt to report the condition of man in a subjective a fashion as possible. In my view, they're directly connected with an attempt to deal with long term societal trends and to lead directly to policy goals.

Social indicators are grounded in the following assumptions. First, a designed state of affairs can be predicted; secondly, that the designed state of affairs can be achieved through rational systematic attempts to plan; thirdly, that the lack of information and the lack of systematic planning are the main reasons, the main culprits, for the present problems, and not such things as the conflict of interests or disagreements over value positions.

On the other hand, I take social policy, and this may be a purely idiosyncratic view to be concerned with setting out guiding frameworks in areas or situations where values and interests conflict, where it's far from clear what should happen. In my view, policy involves struggling to define the objectives and the issues that should be addressed, and this does not refer to a smooth course of decision-making where it's very clear what should be done.

I think there are three problems that are set out, given the assumptions that I made in the beginning, around the use of indicators and social policy. First of all, the assumptions that the lack of information and lack of systematic planning are the

main devils to be exorcised -- I don't think that holds up. I think we do have a certain amount of pretty good information. I think the difficulty, from a policy point of view, in achieving a right ordering of relationships, first of all depends on some agreement as to what the right ordering of relationships should be. I think that depends upon the information that we have being more widely disseminated, including more active debates around that information and a more complete understanding of where it is we are at and where our interests do clash and where our interests do coincide.

I think the advances that have been made in social policy essentially are those which have been seen as affecting most people in society in terms of their interests and their problems, and I'm thinking of universal programs which have been developed in medical care, and education, for example, however imperfect and incomplete they may be. I don't think there is so much a need for the development of more sophisticated ways of recording information as there is a need for the dissemination of that information and the debate around that information. I think in our concern to develop more effective indicators around the condition of man this should be a primary concern.

I guess while I have some sympathy for the development of better information gathering systems and more alliance between the policy-makers both at the political and bureaucratic level, I

really think that social indicators must become overtly political rather than pretending that they represent in some neutral and objective fashion the condition of men. I think that the notion of political parties using social indicators and developing their own policy platforms around those is one interesting strategy that has not really been fully developed.

While I have some sympathy with that I have also found some sympathy with a little poem by E.E. Cummings with which I will finish:

> *"While you and I have lips and voices which are for kissing*
> *And to sing with*
> *Who cares if some one-eyed son-of-a-bitch invents*
> *An instrument*
> *To measure spring with."*

2.0 A definition of social indicators as we use them is that they are the factors at work within particular socio-economic systems.

One really needs to look at a particular area of concern within the context of a systematic approach so that one understands what's called, for want of a better term, the inputs and the outputs; that is, what you want from the system. Is there or can there be a rationale for the utilization of social indicators for policy decisions?

Yes, I think so, in the following way. In as far as one has set out indicators to measure the outcomes of a particular area of concern, then one is measuring progress towards policy objectives

in that area. Then as you get into the detailed measure of the factors at play within that area of concern, one is getting much closer to the question of policy decisions.

Those factors that are important for the outputs of education are certainly those at which the policy-makers should be looking and this is where the interface occurs. For instance, and we found this in our research, peer group effects seem to be important with respect to the development of certain cognitive and affective skills.

That doesn't tell you what policy decisions to make, but it certainly indicates that cost-size classroom mixes are an extremely important factor in the changing outputs of education. The use of social indicators in policy decisions will not make your policy decisions for you -- they will simply, largely indicate where you should be putting your efforts and further analysis to try and get towards something that means something in policy terms.

2.1 Question: Governments' policies and social conditions appear to change over time. Does it make sense to expect that there is a set of relatively stable indicators that can persist through time and administration?

Yes, in a certain sense. If you were measuring something, take the unemployment rate just as an example, and you change the measure over time, you run a danger. You changed both what you are measuring and your perceptions of what you are measuring. If, however,

you were measuring the same thing through time, your perceptions of that may change and the degree to which your perceptions change tells you something about society.

On the other hand, there will be indicators that come and go. An important indicator, maybe 50 years ago, might have been maternal mortality. This isn't an indicator really worth looking at now because it is so low and stable. Hopefully, one day we will be able to say the same thing about infant mortality.

2.2 Question: Is there a real distinction between indicators related to social policy and specific measures for evaluating the success of government programs designed to influence social policies?

Yes, there is a distinction, at least according to our definition. And the distinction was pointed out, I think, quite clearly by Sheldon and Moore when they noted there were dangers in trying to use social indicators to measure program effectiveness. To try and measure the effectiveness of programs to reduce infant mortality by the infant mortality rate is a bit strange because there are too many other things that are happening in the system at the same time. We may be measuring something entirely different.

But having said that, one can still say that as we come to learn about the way in which a particular area of concern operates, it may become more and more possible to trace through the analysis, the effects of particular program actions on the outputs. But in themselves, the output indicators will not tell you very much about the effectiveness of the programs.

2.3 Question: Is there a rational basis or need for setting priorities in social indicator development, and if so, where is this rationale to be found? -- only in existing policies and implementation?

I feel there is a rational basis for setting priorities, and there is certainly a need. One can't do everything at the same time so presumably one does what is most needed. This is not necessarily to meet existing policies. Certainly that's important but perhaps because of the time that is required in social indicator development, there should be some future orientation to our selection of priorities for various areas for social indicator development.

How would one go about this? Well, perhaps we could use certain techniques of futurology to determine certain specific social trends which are important to the overall future trends of the society. Once having suggested or discovered these trends, then, one wants to look at the way in which various areas of concern will be influenced by these changes. The point of social indicators is partly to measure social change, so where social change occurs to the largest extent, that's where one could be putting the emphasis on social indicator development.

2.4 Question: Assuming that indicators are required for policy-making, should/could there be any formal arrangements between policy-makers and producers of these indicators?

I think this boils down to the old trade-off between being independent and being influential. If we want our recommendations to be heeded, to what extent do we have to "cozy up" to the government, and in so doing, to what extent do we lose our independence?

If there is too formal an arrangement, between policy-makers and the producers of these indicators, then the benefit you may gain is a greater influence on policy-making, while the danger is that you may get swept up in the process and lose some of your independence. Certainly you would lose your ability to work in the direction you think best and would find yourself serving more the policy-maker than the broader needs of the society.

3.0 I'm not only unclear about social indicators - I'm having a little trouble with social policy. I'm going to define indicators as simply social data that gets used for decision making or certainly ought to be so used.

There is something else we can call the implicit policies of the bureaucratic system, which are those beliefs and intuitive models that individuals making formal policies use, irrespective of whether they are stated or written down in white papers, green papers or what have you. Some people think the relationship between social policy and social indicators is one of either support or determination of social policy by social indicators. I have a great fear that that is not the case, and as a matter of fact, the creation of social policy brings with it certain kinds of implicit designs, certain kinds of presuppositions concerning what institutions we can erect at certain times in certain climates or what kinds of bureaucratic methods we can use to accomplish certain ends. And what social indicators will be, irrespective of what we want them to be, are those measures

that are adopted within this context, not those measures that should be adopted. I make that distinction because I believe that there are measures that will be adopted, irrespective of whether they should be because, for example, an acceptable organization such as the Economic Council of Canada endorses them. Because the newspapers employ the crime rates, they come to be adopted and touted in arguments at all levels. They are used and they will become in a pragmatic sense, indicators whether they are in a real sense.

There is considerable sentiment I believe, that you will not get policy-makers to use social data, let alone social indicators, because they are going to do what the exigency of the moment requires. That may be true, but it is irrelevant to the design and gathering of reliable and socially descriptive information and the provision of that information to whomsoever wishes -- save for reasons of confidentiality. And if policy-makers won't use it for policies, then obviously you provide it for those individuals who can affect the policy-makers, both the public and the bureaucracy.

The approach advocated by the last speaker has great merit because I think it has obvious value and application. You look at how a system works and measure how efficiently it works. And I think that's a credible and honorable enterprise. However, I'm not sure it has to do with the application of social concepts or measurement of social change. It's great system design work but I am unclear as to what that has to do with the formulation and effectiveness of policy.

We may have policies that prohibit more than 30 children in a classroom. Those may be the kinds of things we are worried about within the system but what I think we also should worry about is whether or not people are being educated. I want to fight the claim that you cannot measure things like education levels. I think you can open a debate on that kind of question by trying to measure it and I think that's where indicators have an effect on social policy or will fail in the attempt. Even poor indicators can have an effect if we can learn why they are poor and make this very clear.

One thing I want to underline is that there are long-term policies and short-term policies, and there are long-term data and short-term data. I think that we often miss the distinction between statistical reform of base line data and creative statistical employment of social research to gather short-term data for short-term problems. When policy decisions arise, you scamper around and gather anything and everything you can. We lack, for the most part, an efficient coordinating and fast data gathering capability within most levels of government. The indicator movement seems to be an attempt to anticipate that scampering, by either building more into the base line data or reforming it by playing heads-up ball with futurology and predicting the scampering far enough ahead so you can start collecting data which looks like base line data. I don't think that's an unreasonable approach.

4.0 Once we get into measuring the quality of life, we get to the point of who's defining the quality of life, and who's choosing the criteria by which the progress or the lack of progress is going to be measured. And I guess my own bias would be that in the writings and thinkings of the most vocal proponents of the social indicators movement, there is this assumption that this is the ball park that social indicators people should be in, and that they would somehow mysteriously do a much better job of developing the goals for social change in measuring progress or lack of progress away from it than others, and it would be that aspect of it that I would have some quarrels with.

I don't think there is any particular quarrel with the need for more and better information at the social data level for the programs that we have. I think the need, the most acute need, is to make sure that that information gets into the public debate around the questions of social change and where we should be going. I think it is that aspect that we are weakest at.

5.0 If I may say a word on the question of definition, I agree with a great deal of what has been said, but I think probably where we differ is on definitions but that isn't really very important. I do feel there has to be some line drawn between just social data, social information, and social indicators. There has to be some distinction otherwise, one just becomes the other, and why call them social indicators? The point is to use some logical construct, whatever it is.

We didn't feel we could take on a whole social system and analyze it, because we just didn't have any workable social system theories we could deal with and use in a realistic way. We took it in bite-sized chunks - childhood education, aspects of urban life, health and so on. We wanted to find out what a particular subsystem such as education, health, etc. is trying to produce, and what the factors are that influence what you're trying to produce. And those are what we call our quantitative indicators.

Now we recognized that with the subjective or perceptive indicators we don't have very much expertise. Subjective measures and perceptual measures, as gathered through attitudinal surveys and other techniques, are extremely useful and extremely important. They are useful in interpreting changes or levels in indicators at a particular point in time from the viewpoint of the society at that point in time.

Through this interpretation, one will also gain some insight into the variables one hasn't considered. For instance, if you find analytically that a particular factor doesn't appear to be important while everyone keeps telling you it is, maybe you'd better go back and re-do your analysis and think again. These sorts of interchange are very, very important. The measures on the quantitative side are important, I believe, but rendering the normative through the use of attitudinal work is equally important in terms of interpreting which way to go from the viewpoint of the society.

5.1 The only comment I have is that you said "We wanted to find out what the system is trying to produce." I think that's a credible enterprise again. But it is not necessarily the enterprise of trying to find out how good the product of this system is, and I think that is a different enterprise. And as an enterprise it can be approached by trying to evaluate both how the system produces that kind of thing and the quality of that product. I think that's a basic difference we have.

I also think that there is less of a problem with priorities and with the criteria for quality of life than people seem to think. The list that I have seen out of OECD and the lists in Perspective Canada and Social Trends are similar. We are common creatures living in a fairly common society with some minor cultural differences. Because we are all competent speakers, my intuitions about what certain words mean are as good as your to a certain respect. And because we are common agents to a certain degree, my intuitions about what is the good life are going to be fairly close to yours. I may like fishing and you may like golfing, but we both like recreation, at a broad level. We aren't measuring a Utopia which we haven't reached as yet, nor are we measuring individual tastes. We're measuring the quality of life, i.e. aspects of the life we have now and that's not that hard.

5.2 I would agree that infant mortality or maternal mortality is passé as a social indicator. I think it's an interesting point

that it's evolved into a control measure and it's moved from something you look at, at the macro level, to something to look at from the micro level. You look at the infant mortality rates at the level of individual hospitals now to see if a particular hospital or region is divergent. So the general point would be that a social indicator perhaps ceases to be useful at the national level when you obtain objectives. It then becomes a control measure and you can move down a measurement level.

6.0 I don't see the difference between a social indicator and social statistics, they are all one and the same; they are all social statistics. The number of teachers per pupil, which I presume is one of the indicators in education, is an input to produce the outputs. And for the purposes of influencing the output, certainly the input is more important than the output itself.

6.1 If you're trying to link social indicators to policy decisions, it's going to be the input you're looking at.

You know the outputs you choose now should not necessarily be the final outputs. But they are the best that perhaps you can come up with at the present time. Later on, our conception of what education is may change and we'll change our outputs.

The inputs are more important in many respects because they tell you where you can be putting your emphasis for policy decision. But there are things that are not policy contolled. If it's something

in the home that's going on, it's very hard to construct policies to affect that. If it's something in the schools, this is much easier to handle in the policy sense. If you're looking at the array of inputs that have an effect on this; you say, okay, these ones are important, here is where we should be looking from the point of view of constructing policy actions. The difference between that and social statistics is very simply this. If I'm concerned about the outcomes of education and I find for instance, and this is not necessarily true, that educational ability doesn't matter as a causal factor, then that to me is not a social indicator. It's an interesting piece of auxiliary social data.

7.0 Then it seems to come down to the following: the differences in point of view between the Economic Council of Canada, on the one hand, and Statistics Canada, on the other, are really methodological. The way in which you arrive at the list of what you think is important is different. One methodology requires setting up systematic cause-effect relationships which identify the important and unimportant inputs whereas the other methodology is perhaps less sophisticated in its appearance, and it consists of internal intellectualizing of what is and is not important.

7.1 If you approach the definition or the investigation of social indicators, or social statistics, using a cause-effect relationship in a systematic manner, you have logic on your side. Well, that's

fine, I don't disagree with that but I never believed that the Economic Council was an exercise in logic and I don't think the relation of social indicators or systems of social indicators is an exercise in logic. It's a very pragmatic development of aides to policy-makers, and I find the appeal to logic a non-appeal. For example, is your education system, as it now is, doing what it's supposed to be doing, and what is it supposed to be doing? If social indicators have done anything at all, it seems to me that it has concentrated attention on notions of output.

7.2 Focusing on inputs to the product of a particular social system, for example, the educational system, assumes that we really do know which of those inputs affect the outputs and which of the components of the educational system is worth measuring because it really does have some impact on what comes out of it. And I think that that's a crucial assumption.

7.3 It seems to me wrong to join the battle of whether perceptual indicators are worthwhile doing. Those who think that the quality of life is a non-question, which I believe it is, are then accused of being fuddy-duddies who don't believe in perceptual indicators. But there are a lot of perceptual indicators which have nothing to do with the quality of life -- attitudes towards people, attitudes towards policies, certain intentions which people have or may not have, a certain way they receive certain policies;

all these things, I think, are worthwhile pursuing -- all these things illuminate the non-quantitative aspects of our life, the so-called quality of life.

8.0 Aside from that, some concerns that we don't usually measure are, for example, the quality of teachers, and what constitutes a well-motivated school system?

We show that native people have a problem in terms of motivation as perceived by the government's interpretation of educational efforts. What I think departments of education in each provincial government probably need to know is: what are the things that could be implemented which would improve the quality of teaching, which would improve the motivation of students at all these levels? And what are the actions which could be implemented to change the system so that they could adapt to those socially indicated needs in some way? I guess I'm introducing social indicators to the micro-level to argue that looking at the Canadian indicators or the continental indicators or the international indicators isn't helping us to really get at these problems where they occur, at the individual, family, community and regional levels, etc.

8.1 The thing is, there is a problem here in the measures you choose as your outputs. These are likely to be somewhat different for another culture. They should be different for the Indian or

the Eskimo culture, or the Anglican culture in Canada, etc.. So there is a basic problem of selecting; how do you actually get at these things because you know you've got to worry about the changes you want as well as whether you're measuring what you think you are measuring.

You try to measure the outputs of the Indian and Eskimo systems within the terms of their cultures, which means devising particular standardized tests to do this, and perhaps it is best if they do it because they understand the culture way better than we do. Then you can go and try to find out what other factors influence these: family, the school itself, characteristics, and the future, etc..

8.2 I think it is perhaps unreasonable and may be even irrational to expect social indicators, as we're talking about them here, to be of any use at all in the specific kinds of problems that this gentleman raised about education and native peoples. It seems to me that it's just a different subject that we are talking about. One better realize that to disaggregate social indicators that are collected or produced at a national or even provincial level so that they are useful in the community or even sub-community level, is a very, very difficult task, one that nobody has ever come to grips with in a realistic way. And I don't think we can expect to see this happen in the next 25 years, so you're really talking about seeing the effects

on your policies maybe 50 or 100 years from now, if somebody makes a very brilliant breakthrough.

My own thoughts in terms of the way in which one builds models regarding the functions of society, either at the national or provincial or other levels, leads to models that are so complex and so incapable of disaggregation that my own expectations are pessimistic.

8.3 In economics, the models that one builds at a macro level are substantially different than ones built at a micro level. We must realize that there is going to be a similar phenomenon going on within social constructs.

Another practical problem in backing down the disaggregation chain is that eventually you get to the point where you're being absolutely silly if you're trying to go and measure these data because they are staring you right in the face. I mean the teacher sits in class, and he can see who is motivated and who is not motivated.

It seems to me that there are many micro problems that shouldn't be touched at all by mad macro people or macro or social indicators.

9.0 It seems to me that there is a basic split in this whole exercise on social indicators or maybe it's more akin to schizophrenia among those who are involved.

One side is the sort of system approach to social indicators involving a framework and a system with its tight definitions, and intellectual exercises where we become involved in a lot of these questions, take years working on it and eventually perhaps, we get it into place. The positive thing about that, of course, is it provides a nice efficient way to collect data once we get going on it.

The other approach which I see is the more pragmatic, directly policy-oriented approach. We define these data needs and how to get those data, and then we set out collecting the data. The positive side is that we can collect what is required and we're fairly sure it will get used for policy measures. The problems with that, of course, are that we may not have time to collect the data and to get sufficient data, and also that we can't get the data over time. We may have to rely on insufficient data which may reflect exceptional rather than normal trends, and certainly we want trends.

Which of the two approaches is going to be more fruitful in the future social indicators research and in what way?

9.1 I think that to talk about two competing approaches is a confusion. I think there is a basic dichotomy between those of us who in practical everyday situations scurry around and grab anything in sight and ram it down the tube in hopes that it will impact on a policy because the policy decisions have to be made tomorrow in certain instances, and those people who build and organize systems of data collection and dissemination.

One of the things that I think is crucial and important to notice is that at least governments and the public are beginning to ask for output oriented trends and to expect monitoring. There are questions which people have been afraid to tackle because thinking and theorizing are traditionally dirty words in government. I'm talking about questions like - what is justice? what is health? - which have no impact at the moment on the fact that people have been murdered in the streets and raped. But they have great impact on describing the situation and its variables twenty-five, fifty, a hundred years down the road.

And that's an interesting and worthwhile exercise. And gathering data to support such conjectures is also interesting and worthwhile. It may not help this gentleman with his problem, but maybe he should go someplace else for help with his specific sort of problem.

SESSION II: SOCIAL INDICATORS AND SOCIAL POLICY II

CHAIRMAN

Judith de Neufville,
University of California, Berkeley

PANEL

Hans Adler, Statistics Canada
Stephen Fienberg, University of Minnesota
Earle Snider, University of Alberta

Session II:Social Indicators & Social Policy II

1.0 I choose to use the term social indicator to denote social statistics collected for the purpose of measuring changes taking place in society. And that's where I put the period. I really am cutting off the connection with social policy, whatever it may be. The purpose in collecting data used in indicators is enlightenment. The aim is to comprehend the main features of society and how they're interrelated and how they change. If this enlightenment can be helpful in guiding social policy then there is a relationship between social indicators and social policy and government decision making. And if not, then not.

Social indicators and changes taking place in them -- if the indicators are well chosen -- clearly do provide ideas regarding government programs and social policies. But I think it's important to note, as Eleanor Sheldon and Bob Parke recently did in an article in Science, that there is no justification for our letting the agenda for work on social indicators be governed by perceived informational requirements proposed by a social engineering approach, or that such work be limited to policy manipulable variables, that is, those subject to the control of the agencies responsible.

1.1 It's important for us to distinguish between the descriptive social statistical time series that are usually labeled as social indicators and are used to monitor and analyze social

change, and the experimental designs through which we can attempt to evaluate government programs. My view is that social indicators are designed for enlightenment and for monitoring, analyzing, and building models for social change. But if one wants to talk about evaluating government programs and social policy, then to come to grips with serious evaluation, you have to be talking about controlled field experimental design.

2.0 There are many concerns that can be raised about social indicators -- for example, questions of the extent to which a social indicator can be treated as unequivocal, i.e., not subject to conflicting interpretation and questions about the interpretation of the word "social" as part of the concept "social indicator". We're casting a very wide net when we're casting a net called social. And what in the end we may catch may be a very diverse beast. This is a problem of the nature of the social sciences. To some extent, economists have been able to avoid this, or they prefer that others believe they have avoided it. And I think they have conned everybody pretty well since we all believe in GNP.

But the chances are, as I see it today, that social indicators will never influence social policies decided by politicians, because of the conceptual, methodological and political problems inherent in social indicator work plus the very sorry fact that some people, many people, are now pushing social data

banking as a surrogate activity for social indicators work. It is not clearly social indicator work unless it is tied to something much more.

I would like to comment on some of these things a little bit more. With respect to the conceptual problems, it would be very nice, of course, if we could achieve the lofty goals touted as the benefits of social or urban indicators -- improve descriptive reporting,analyze social trends, assess the performance of our society in our cities, or anticipate alternative social futures.

2.1 There are methodological problems, many of them. For example, some prefer to rely on single indicators which may be deceptive if what is being indicated is a complex phenomenon. However, proposals calling for large numbers of indicators are also regarded with skepticism. Highly aggregated indicators derive much of their utility from inherent possibilities for disaggregation. Whether or not this is sufficient justification for aggregated indicators in the first instance is another issue.

Errors in the data sets often go undetected. We've run into this problem in Alberta several times. Not too many years ago, the city of Edmonton was in an uproar because we lost 9,000 people somewhere. Well, this was simply a reflection of the City of Edmonton relying on census procedures which were in no way valid, and they got caught in their own kinds of mistakes. Many people were leaving the City of Edmonton proper for suburban

areas like St. Albert, Sherwood Park, you may be familiar with some of these surrounding towns, and the City of Edmonton continued to believe that this was part of the City of Edmonton. Indeed it was not. Instead of a five per cent growth increase, in the end, they were really only talking about a one per cent increase.

Many of the activities performed by the City Planning Departments and Regional Planning Departments are used by developers in this same way to try and show that growth is going this way or that way, and therefore annexation etc. should proceed. It's only recently that we've been able to do something that I think is inherent in any kind of social indicator work -- that is, to ensure the data that others are referring to are indeed correct data. And developers, because it's their business, will often use data to suit them but this may not be the use which the authors had intended. I could go on and on with the methodological problems -- limits of single inventories, the tricks that time plays on the usefulness of specific indicators, the dangers of employing surrogate variables, etc.

2.2 It may be that all we have to do to realize the promise of indicators is to develop brilliant conceptual models and then, only to empirically verify them. Wouldn't it be lovely to know which indicators are the most important and significant? Wouldn't it be easy then to establish to everybody's amazement and agreement how they would be applied in preparing and evaluating plans?

All that, unfortunately, is about as likely as the need not to have another discussion on what to do about social indicators. One of the major reasons, I think, for that is social policies and politicians go hand in hand. And I believe it is simply naive to assume the conceptual and methodological problems will ever be solved as long as politics and the politicians create policy -- the very thing we wish to indicate upon.

Politicians do not wish to indicate or be indicated upon, especially before an election. When politicians want to know, they want to know. Political expediency often sweeps aside methodological and conceptual concerns. Some would argue we suffer from information overload while others would claim we are desperately short of proper data sets. The important debate will most likely be lost in the arguments about invasion of privacy, computer technology, etc. The lofty goal of indicators in predicting social futures is a risky business even when the prediction is accurate. As I mentioned many times before in Alberta, there was a document prepared by an agency of the government, which predicted the decline and demise of the Social Credit Party in Alberta. It would be a mistake to assume that an objective method exists for selecting value-free indicators in the social or urban state. Policy decisions are implicit in the choice of both raw data and the alleged indicators. The rise of the social indicators movement was largely in reaction to the perpetual love affair with GNP and other economic indicators. Just to assume that

if we're not as economically oriented, social indicators will automatically save the day, is a mistaken assumption.

3.0 I've never met a policy-maker in my life. I'm not sure to what degree statistics or any type of information helps in decision-making or whether decisions are still made by some instinctive process and then one finds a rational explanation. If that decision can be supported with sufficient statistics, then it's all the better.

I find nothing wrong with the definition of social indicators as a means of enlightenment. One doesn't have to take a position on whether they help in policy formulation. If indicators really do enlighten, do help raise knowledge, do increase sensitivity, to that extent, they help policy making and policy formulation. That's really the best thing they can do. And, as a matter of fact, I would distrust any decision which is based on any one, or even any 10, social indicators or numbers but which doesn't take any non-number effects into account.

3.1 A good socio-demographic system of statistics is, in the last analysis, a good data bank, and out of this good data bank and out of the good socio-demographic system of statistics, social indicators should naturally flow. To develop a good SSDS is something which is twenty or fifty years away. I am not aware that anybody would seriously substitute the so-called data banking work, which is important, for developmental work on social indicators.

4.0 The simpler you keep the definition of social indicator, the better it is. If you start with a definition like, social indicators are statistics that measure something important, you'll probably get to real issues a lot faster than if we start with something like,they're statistics that are somehow incorporated into a model or they're statistics embedded in a social theory or something. I would like to just avoid talking about social changes altogether because change is not the important thing. If you have statistics that measure something important, like infant mortality, and those statistics haven't changed very much over the last ten years, they've nevertheless important statistics. We are going to keep on counting it because it is important to know if babies are dying or not. The crucial thing is having numbers that are measuring something important. If the numbers happen to change, that's going to be interesting too. The change is second to whether or not it is important.

4.1 If infant mortality doesn't change and you know it won't change, then why do you bother measuring it?

4.2 How do you know it won't change?

5.0 I've really hoped to learn something here about what people who are developing social indicators have to say about the relationship between social indicators and data. And what, in fact, they would like to see Statistics Canada doing to facilitate the process.

5.1 The data you collect must be of sufficient interest to a sufficient number of people and assist them in some way or another in a solution to their problems. Some people are more vocal in making their needs known, and this is obviously one of the things one takes into account.

5.2 If one is faced with problems of crime -- problems of how one can more equitably and effectively administer justice in this country -- and if one spent sufficient time in looking at the very large array of indicators that one can come up with, I think one couldn't help but be a lot wiser. There are all sorts of problems, many of them associated with the qualities and limitations of data. And I think this implies that we should fix, improve, modify and change the data base that we're making available to those people who are concerned with the administration and description of, for example, justice within the country.

5.3 In the case of culture, we don't have any data. So far, society has not given any priority to the creation of significant amounts of data that researchers could effectively use in building indicators in that area. We have here an opportunity to start with a clean slate provided the relationship between social indicators and social policy is sufficiently clear to enable the politicians to decide to put some resources into the development of data which can subsequently be used for the development of social indicators.

6.0 I believe that some people have been misled in entering the social indicators game. They were mistakenly led to believe

by policy makers, either the politicians or those on the level just below them, that there was some hope that the academic world might have a role to play in the establishment of indicators -- and this would relate to social policy. This is a hope which has never been fulfilled. It seems to me the academic community can't abdicate completely from this process just because it's a difficult one. Surely one of the difficulties with the creation of social indicators is the absence of some sort of model or models, some sort of social theory.

6.1 Government statisticians must go out and collect the data and at the same time develop this highly theoretical stuff.

6.2 The assumption was made that through the "social indicators" movement, there might be more of an inter-relationship between the politicians, the academics, and those that collect data -- this is something that I personally believe just hasn't happened. What I see happening, primarily in Canada,is many academics withdrawing,leaving model development to those whose role was defined to be the collection of statistics, and now one has to do both. I guess what I'm looking for is some kind of way for the three to interface once again so that we can start to move down the road which I had thought we were already down.

6.3 In the United States, there are models that have been developed through this kind of interaction. Unemployment rates, for example, have always involved this whole interactive process

between academic and civil servant committees which supervise every kind of methodological change. Formal user groups have regular meetings and interactions, talk about how they use the data, how they don't use the data, and then go to the elected officials and talk to them about how it works and how it doesn't work. There is a whole lot of interaction that has occurred entirely without any social indicators concepts. The data I'm talking about are data that somebody cares about. The minute data start making a difference, the more people use them and the more they find out what is wrong with them and the more they come back and say, "We want it changed." You can't do this in a vacuum.

7.0 Surely we cannot talk about social problems without talking about social policy. I'm talking about the things that people are concerned about and want to see maintained -- whether it's the quality of the air, or the quality of urban life, or the level of unemployment in society. It is important to people that a certain level is maintained in those areas. It seems to me that you cannot define a problem without having a policy orientation with respect to a certain phenomenon in society because something isn't a problem if you don't have a certain value with respect to it. And having values and priorities with respect to things is to have a social policy orientation with respect to society. That counts for citizens in cities, poor people, workers, nurses, everybody in society, not just politicians. I think we

ought to begin to say which indicators will give us a kind of comprehensive notion of what is happening in society on those aspects of life that are important to people.

7.1 How can you expect to make proper judgements regarding social policy without knowing what influences things -- without some idea of relevant causes and effects?

7.2 You are confusing normative judgements with policy. In order for something to be a problem, you must, of course, have normative judgements. You must have a certain aim or goal in mind or stage you want to get to or stage you would be happy to be at. But this isn't social policy. You have, for instance, a problem of income distribution. You may want more or less of an egalitarian income distribution. This is a very real problem among the Swedes, who want a more egalitarian income distribution, and the British, who do not. The social policy which you pursue, then, depends on what your goal is.

7.3 It's not that politicians are the only ones that define or control policy. I'm saying they are a major group in our society that makes decisions. Your group may have a policy on capital punishment but you don't make the final decision -- that decision is made by someone with a vote. Part of the thrust of my concern certainly is that those people who have the votes are often the ones that are the hardest to argue with, with respect to social policy...something that those interested in social indicators may have to live with. Statistics Canada lives

with it every day.

7.4 Where did I come up with this idea of trying to use social indicators as part of the decision-making process? I didn't learn it from my experiences as a bureaucrat -- I learned it back in the schools. That is where I was taught all these things about rational decision-making and the need for new types of decision-making. All political theories seem to be moving in that way. Now we hear that it's our problem if we're interested in social indicators.

7.5 You try to explain social indicators to people who think social indicators count how many socialists we have in the country. People don't know what social indicators are, but they have to make policy decisions on whether it's a useful type of exercise.

7.6 I am not saying that social indicators are unimportant. What I am saying is that you can't use them in the way you want to use them. The idea that you can come to somebody in Statistics Canada, and say, "Give me five numbers and I can make a decision," is just a mistake. If you want to make a decision, you have to set up the proper framework and get the data that are pertinent to that particular decision. For you to expect someone to collect on an on-going basis, data that are suddenly going to be just the numbers that you need to make your decision, is just a mistake. And that's the thing that's a mistake and is so dangerous.

7.7 There is no question of policy makers saying, "I know I have to make a decision on this. I have to make a decision on how

to allocate money for criminal justice, and therefore I am going to go to Perspective Canada and read the chapter on justice to see what the indicators are, and then I'll decide how to allocate my money.

7.8 But you can go through the numbers and make more rational decisions than if you don't go to the numbers.

7.9 Sometimes. You have to understand that survey data cannot lead to serious cause and effect relationships.

8.0 I have a comment to make. I came to the conference hoping that I would be able to take back social indicators to the business I represent to help me in business and policy decisions, and I guess I'm disappointed. One little thing I do observe is that the potential users of your information are not well represented at this conference. I have doubts whether sociologists should be talking to sociologists about what social indicators should be. You keep referring to the idea that we need to be talking to these politicians and businessmen and consumer groups and minority interest groups and whoever's been using these things. You keep saying this and yet you don't seem to address the problem. We're not talking about specifics or any orientation towards developing indicators that are useful for particular policy planning. I think that's a legitimate question to ask why we aren't.

8.1 This points back to the issue already raised in terms of who benefits, and for what purpose are the data collected?

That's the crucial question that's been skirted around consistently. You can't collect data unless you define the policy first because policies define problems. There are all kinds of problems in the world and only a few of them are being researched. And given the distribution of power in this society, it is more likely that we will be collecting data on green blackboards than we will on tuberculosis among Metis and native people.

9.0 In the United States, social concern has made a tremendous difference to the data base. You look at the data base related to social problems and social concerns in the United States now compared to what it was ten years ago. You find an extraordinary difference, and it simply is not happening in Canada.

In Canada the social data base has changed marginally and fractionally. The community at large is not putting any more money into the generation of data relative to social problems now than they did a decade ago. And that says a lot about the communications that have not taken place. The communications which would affect the decisions taking place between mathematicians and politicians, between bureaucrats and politicians, between businessmen, between those who are concerned with problems of crime and all that, etc. have not been affected at all.

One of the reasons for that is the alienation of the university community in Canada. It's primarily an immigrant

community. We're not engaged in Canadian society as an academic community. The American academic community must be a primarily local community.

SESSION III: ENVIRONMENTAL INDICATORS

CHAIRMAN

Robert Scace, Private Consultant

PANEL

Anthony Friend, Statistics Canada
Bill McDonald, Alberta Environment
Dixon Thompson, University of Calgary

SESSION III: ENVIRONMENTAL INDICATORS

1.0 To begin with, as you all know, the concern over the environment is a relatively recent phenomenon. Since the late sixties, we have on countless occasions tried to make people aware of the potential dangers which threaten the very nature of the environment. This concern was treated in the government by bringing together a Department of Environment.

Very typical of government efforts, parts and pieces from different departments were stuck together and called the new Department of Environment. There were Fisheries and Forestry, which were separate departments before, speaking different languages, and with quite different interests in mind.

Then you had the great pieces which were taken out of the Energy, Mines and Resources Department which were concerned with water resources and their management. The new part of the new department was the section called the Environmental Protection Service and it was their responsibility to deal with protection of the environment in terms of pollution abatement. We then had a phenomenon of a new department with different sections and different interests, some in fact even contradictory. Fisheries and forestry were entrusted with the exploitation of resources whereas the problem of the management section was primarily the conservation of these same resources. There was already a

built-in contradiction in the department.

The point that everyone has made is that we need more information on the environment, more public information. There was a great deal of information being used by this department but it was very much of a technical nature and specialized. There was really no one in the department who felt responsible for trying to produce a data system which could be used for the provision of public information or a more aggregated type of information.

1.1 One of the earliest exercises in the Department of Environment to get aggregate information was the development of an environmental index. One group held that it was possible to produce an environmental quality index based on the assumption that one could set a standard and using data, one could develop a number which related to that standard. What they did was bring together practically all the data that were available and with the help of mathematical techniques,tried to piece them together. Some people realized that this exercise was absurd. First, adequate data were unavailable and secondly, they began to dispute whether in fact an index was at all meaningful. It was finally dropped because it was recognized as too much and too simple.

1.2 A second approach centered on environmental use indicators. One might develop a set of specific indicators for specific areas related to use. This also is the approach in the United States.

Unfortunately, these indicators were very specifically related to just one aspect or another of the environment. Some people felt that they needed to look at a more integrated system where inter-relationships are apparent.

1.3 One aspect which, as part of an information agency, I myself am particularly concerned about is that we have a lot of information about production and consumption. This information is largely institutionally based, with industries as a special class of institution. Environmental information is primarily biophysical and chemical information, which is specific time and place information. You cannot merge the two information systems together.

What I'll do at this stage is simply to describe the system we are looking at. What I want to say essentially is that we're dealing with a paradigm -- a way of thinking. Now this is not a model. It is essentially a method of thinking or a framework for developing environmental statistics. We have included the set of policies and programs. In this paradigm, you want to build into it right at the beginning, the feedback relationships between policies and the information derived from the environment. I think if we do that, we will avoid some of the problems that take place very often in developing systems, i.e. losing contact with the policy relationships.

1.4 I think we have to be quite honest about the fact that, when developing information one needs to have some normative kinds of criteria. You build into the paradigm the idea of constraint and standards right at the beginning. Ideas of conservation of resources, for example, or ideas related to specific theories are what we want built into these information systems.

2.0 I would like to present a few general points about environment indicators or environment quality indicators. The myth of value-free science and absolute scientific objectivity have been, for the most part, put in their place by people that have been thinking about science. Those people who are very much concerned with doing science in their labs or who are primarily concerned with numbers perhaps haven't recognized this. The value system which operates in determining what is selected for study has been recognized as one of the most important factors of how our society operates. Perhaps these types of value selection systems haven't been studied enough.

That's one of the significant merits of environment indicators or environment quality indicators, that is, a conscious effort to determine what we should study -- selective spotlighting of problems and when it's possible, an effort to anticipate and prevent problems from developing. What we don't know can hurt us and the increasing awareness that environment indicators provide is very important.

However, for a number of reasons, that awareness is difficult to operate on or make practical use of. First of all there is the nature of evidence and the nature of proof as far as western man is concerned. By the time we have enough evidence of an acceptable source to satisfy the scientific mind -- by the time we have proved in traditional western man's opinion the existence of a problem-producing relationship -- it's often too late. Scientific proof is the sort of thing that gets published three years after the fact.

The second point is that numbers alone are ineffective even if we do have a good set of statistics on a specific problem. Naming a few well-known social problems: cigarettes, venereal disease, automobile accidents, nuclear power etc.; these are areas in which we do have a lot of data, but society has not necessarily acted on any of these, and similar environmental problems are in the same boat.

2.1 There is a particular problem in countries like Canada where the political systems cover a very large area. The government has to consider environment policies for all sorts of different systems. What is effective in the east slopes of the Rockies is not going to be effective in another place. That leads us to the fact that too little attention in design of environmental quality indicators has been paid at the level of political process in which those indicators are going to be

used.

2.2 I am becoming increasingly persuaded that the process of aggregation cannot turn a quantitative assessment into a qualitative evaluation. This goes something beyond the value-laden aspects of selecting what to study in the first place. Now that's important -- an assessment of what we can determine in a quantitative sense versus an evaluative one -- that is,one which involves subjective quality statements versus objective quantitative statements. The western analytic mind that finds out what things are by taking them apart has a difficult time dealing with the whole, particularly dealing with the qualitative aspects of the whole.

2.3 If those who are involved in work with environmental and environmental quality indicators want indicators to be effective in the political process, they are going to have to become involved in a number of things. They must become involved in education or propaganda or changes in value --I don't care what you call it, but that's what you're trying to do with the decision makers that you're giving information to. They have to be much more involved in interpretation, part of which will be aggregation, but aggregation alone will not suffice without interpretation. They must be as concerned with the form as they are with the details of the content. They've got to be very careful to design specific tools for specific jobs, and

design them for whomsoever is going to get them -- at some levels they are going to have to move away from number crunching. Number crunching serves very nicely in the technical level but not when you get up higher into the policy level.

2.4 The problem of values has got to be recognized. I will give you just one brief example. That is in the area of recreational environmenta quality indicators. It's one thing to approach recreation as recreation. However, you come up with an entirely different perspective if you approach it in the form that I have done, and split it into what I call high conflict versus low conflict recreation. That is, high conflict in terms of user-user interaction, user-landowner interaction, user-ecological systems interaction, and user-resource abuse interaction. High conflict recreation is generally gasoline and gunpowder. Low conflict recreation is generally muscle power. Gathering statistics on the basis of this kind of value system leads to some conclusions that are difficult to arrive at if the distinction is not made before you approach the quantitative information.

In the more specific areas I want to run very briefly through some things that I think should be given more attention and are important to environment quality indicators. One area is the psychological impact of the environment. There's a very interesting section of Gabrielle Dubois' novel, The Cashier.

In the center part of the book, she describes a down-trodden bank clerk who is very low on the economic scale, whose health is gone, whose spirit is gone, and he is ordered by his physician to take a holiday. He can't afford to take his wife so he takes off into the mountains. The first couple of days scare the hell out of him but all of a sudden, he sees the world in an entirely new way. He gets so enthusiastic he quits his holidays early, jumps on the bus to go back and get his wife, to return and live happily ever after in the bush. Whether or not that's realistic doesn't matter. The significant fact is that when he gets on the bus and as he moves into the city, Gabrielle Dubois does an excellent job of describing in a qualitative fashion how the city just squashes him. By the time he gets back into the city he's forgotten why he came back. He's just back in the whole thing and clumsy in the process. That's one example of the psychological impact of the environment.

2.5 I think more attention has to be given to epidemiology and to linking specific diseases or specific symptoms with employment, geographical regions, residence -- to try to link up such things as lung diseases and asbestos or cancer with specific chemicals.

2.6 Ecological preserves are very important. If we don't have natural baseline study areas to work in, it's going to be very difficult to do any kind of comparison studies. This

provides the low-level detailed quantitative base that we need. For example, we need a large prairie grassland preserve. There are a couple established in Saskatchewan but we've got some British and German tanks ruining the largest farm that's available in the Suffield area of southern Alberta. It would be nice if we had a large area of hardwood forests in Ontario. I think that's probably impossible now.

2.7 We need to do more assessment studies. By assessment I mean going back and studying areas that we've already screwed up -- as an example, consider sulfur dioxide pollution in Trail, British Columbia. We haven't been careful enough to go back to these areas and study them carefully so that when we do something new we know what to look for. We're working too hard trying to learn how to predict when we haven't gone back and done enough after-the-fact studies. There is a little book that was put out some time ago on the beachline erosions on Diefenbaker Lake -- that little study didn't take very long, didn't cost very much money, and was very informative, and we need more of that.

3.0 It's rather interesting to contemplate the rather ironic situation we seem to be in -- we have enshrined in legislation and through the establishment of agencies, both federally and provincially, organizations and mechanisms to effect environmental control. But at the same time we are

still struggling with a number of problems related to the identification of, and research on, epidemiologies associated with desirable standards of environmental control. One example would tend to illustrate this. The fact is that the federal and provincial governments have embarked upon the very substantial ten year environmental research program in the Oil Sands area in northeast Alberta. But it was only later in the agreement that the human environment was included in the research strategies. I think this perhaps indicates something which is still missing at the practical and operational level of both the federal and provincial governments, and perhaps is also missing from the concerns of other institutions such as the universities.

4.0 Suppose you measure specific air pollution, and you find out that at a certain level you're going to have an incidence of a certain respiratory problem in .1 per cent of the population. Okay, .1 per cent is a pretty low level, and so we will say that pollutant at that level is now an acceptable standard. That's where the qualitative value judgement comes in. However, in Canada's population, that .1 per cent is 22,000 cases of whatever that respiratory thing is. I think that it's the deciding that, "Okay .1 per cent is where we are going to make the cutoff, and we will tolerate those 22,000 cases of whatever" that defines what quality air is in this example.

5.0 People who want to work on social indicators are attempting to develop something which,through use, becomes a kind of barometer. I'm parroting a philosophy found in the federal publication, Perspective Canada. In a sense we can come to use some measures, and through use, they become barometers to serve various people. No one asks for full solutions when it comes to the problems of environmental measurement. The aim should be to sensitize, and that is the work to which both academics and government researchers should be devoted.

6.0 I think there's some confusion when we talk about quality indicators in the environmental sense. We talk about the quality of the air, the quality of the land, the quality of the water etc., but the point is that we are talking about implied standards in judging the quality of these things.

6.1 The point of the enterprise is indeed to sensitize people, but you can only sensitize people if they believe the numbers that you are producing, and if those numbers in fact have some scientific basis. That's the reason why I am looking at this approach of monitoring the information in search of some of the really important units of the natural environment.

We have to monitor the basic structure of the environment in terms of systems or types of systems. We build

models around these systems to indicate what are the relevant measures. I can give you an example. There have been micro studies of the lake systems to see how much stability they have. They have actually taken a lake and polluted it deliberately and tried to see what the impact of these pollutions are in the lake and at what point the system breaks down. Without any of this basic research you might create a whole set of indicators that have no bearing on the real issues underlying the structural problems. This can happen very easily. We hear all the time that the quality of the environment is improving in certain rivers, lakes, etc., as is the air over certain cities. And it is wonderful, and it is all based on the way we monitor the environment. But there may be other structural things taking place that we are not aware of yet -- things we are not taking into account and we don't dare start worrying about because they haven't become issues. If we start developing a set of indicators which do not reflect the basic structure, we may be deluding ourselves. That's the point I'm trying to make.

6.2 Very detailed information gathered over long periods of time are extremely useful for the person developing specific programs to control the water quality or air quality or wildlife management systems in a specific area. They are absolutely necessary for the waste treatment manager in industry or in a municipality or whatever. But when you try to take that mass of data and run it through a

computer, do a number of crunching exercises and come up with an environmental index of 7.5 and you tell the politician that the quality of the environment is 7.5.... ugh! that number doesn't mean much. It's important to increase the awareness and spotlight the problem if we are going to be able to do anything about specific problems.

6.3 I don't think that even increasing awareness really goes as far as you think it might. For example, people will smoke for a long period of time and then they become suddenly aware that there is a connection between smoking and lung cancer. They became sensitized to this because of advertising and all kinds of propaganda about these things. Yet we get no evidence to say that being sensitized or being made aware has really changed behavior significantly. Individually they believe it will never happen to them. I think the best you can achieve is to present an index to measure the physical phenomena or whatever, and let the political process in a sense superimpose what it will.

6.4 I think that one of the problems is this. There is a problem of motivation in terms of attention paid to environmental problems generally. Also there is a question of how to delineate the linkage between the man-made environment and the eco-system, and what we normally think of as the social and economic systems.

6.5 Statistics Canada has a handle on some crucial data systems. It can effectively collect institutional data, and individual and

geographically related socio-economic data. What we're trying to do is to integrate that socio-economic data with some form of environmental data so that we can see the relationship between production and pollution, and the impact of increased production in certain areas in terms of its effects on the environment.

SESSION IV: NORTHERN DEVELOPMENT

CHAIRMAN

K. Scott Wood, Dalhousie University

PANEL

Paul Conway, Northern Development Group
Robert W. Reid, Department of Indian and Northern Affairs
Robert Scace, Private Consultant

Session IV: Northern Development

1.0 I guess most of you here have some association with the north. There has been a tremendous development in the last twenty, twenty-five years which most of us are aware of. In recent years there have been some policy initiatives that I think are quite relevant to the discussion of social indicators in the north. One was the establishment of some national objectives for Canada in the north which were developed by various government departments and agencies which are involved in the north. There is also a planning memorandum which was developed for 1970 - 1980 which, from the context of those national objectives, outlines some guidelines and priorities for development. I think all this has particularly pointed out a need for social, as well as economic, indicators for rather specific purposes.

It seems to me there are some unique features of the Canadian north. I think this applies as well to the northern parts of the provinces and would, it seems to me, have some considerable effect on the way in which social indicators are developed. My remarks mostly relate to the Northwest Territories. It's a relatively small area in terms of population with a very undeveloped industrial structure in the sense that it is not a very fully articulated one. The communities in which people live are spatially dispersed and are really quite heterogeneous. These are various ethnic groups, linguistic groups, and religious groups that result in some rather

interesting problems when trying to aggregate Northwest Territories data.

I would pose also the question of whether there are other rather unique features of the Canadian north that need to be taken into consideration in the development of social indicators. There certainly has been a lot of change in the north, and there is more to come. One considers the possible impact of the MacKenzie Valley Pipeline, the $8 billion project in the MacKenzie Valley, and all the things that go with that -- we have not marginal change but rather massive change taking place.

What should be the purpose of social indicators in the north? There seem to be a number of possible perspectives in developing social indicators. What set of values will be promoted by indicator development, and are there some ethical problems to be considered in the use of social information in an area like the north? What are some of the unique data problems? I think there are many other issues.

2.0 About six years ago, I became interested in the north. At that time, there were about 25 departments, central government departments, working in the north, spending various sums of money ranging from half a million dollars or less up to possibly $70 or $80 million. At that time each of the departments was largely working on its own. Then Cabinet suggested there should be an integrated look at all expenditures in the north both in terms of what we were spending and what were the consequences -- how this

was affecting the north. What we need are some indicators to help analyze expenditures and to show what the situation looks like in the north from a kind of global point of view.

After working on the financial side, I was asked to prepare a paper on social indicators on, shall we say, the "facts" side. This is how I define "social indicators": "statistical data that provide a measurement of some aspect of a social, economic or political phenomenon that is of interest to managers for policy purposes". I look upon a social indicator as some kind of statistical data developed in such a way that people who are handling programs, who are responsible for achieving certain goals can both determine what kind of situation they are facing in terms of trying to reach those goals and, once they get their programs into being, the extent to which their programs are reaching these particular goals. There are seven northern objectives or policy goals as I recall, one of which is to improve quality of life. There's a beautiful statement in that goal to the effect that with regard to native people, we want to improve their standard of living but in accordance with their own aspirations and preferences.

2.1 I think the basic problem in looking at social indicators from a managerial point of view is that we've got to look at particular circumstances in the north, and one of these is the large native population you have there; in the two territories, I think possibly 40 per cent of the population is native. In the Yukon, it's something like 10 per cent of the population native, 90 per

cent white if I'm not mistaken. In the Northwest Territories, it's more like 50-50.

Social indicators for the north, dealing with population characteristics, should record the specific circumstances of the whites and of the natives where such distinction is believed to be analytically important. Thus a distinction should be made between two basically different situations: first, the change in material welfare of the specific population group over time and secondly, the change in the welfare of that group relative to change in the other population group.

Indicators should also be capable of being integrated into the northern strategy, that is, capable of being linked forward to the set of northern objectives and backward to the specific programs being undertaken to realize these objectives. Thirdly, indicators should be considered to be primarily tools of management. Therefore they should be to the fullest extent possible "value free", and since they are closely associated with the developmental strategy, should provide information of immediate relevance to policy makers. In addition the indicators should be of such a quality that they are credible even though the inferences derived from them with respect to policy may be controversial.

The general feeling, of course, is that the natives are worse off than the whites in the north and this has been substantiated by information that I've got. One of the basic problems is that many of the native groups are becoming more militant now

and have submitted briefs to the government that have set out their situation and suggested that certain types of government policies should be implemented. Many of them said that job opportunities were very poor, and many natives were unemployed but if they were employed, it was only on an intermittent basis and often at jobs that paid very poorly. Secondly, educated natives didn't seem to have access to those kinds of occupations that were influential in society in terms of structuring policy and changing society.

Thirdly, natives were very much worried about the deterioration of the distinctively native culture seen largely as a consequence of the educational policies of the territorial governments before the federal government assumed this function. Another basic problem was inadequate housing.

We started constructing indicators in these three areas. Our basic data have been derived from Statistics Canada. What we're doing is trying to develop indicators showing population structure in the north -- we're developing indicators from the 1971 census and also,hopefully, from the 1961 census so we can compare the situation between these two points in time. Employment statistics will deal with the extent to which there is native employment in particular industry sectors. We are also developing employment statistics showing labor force participation by the natives and the whites, male and female, and by age groups, and also by the extent to which the various ethnic

groups have passed through the educational system. We're also working on an occupational status indicator.

2.2 One of the very interesting things in the north is that although there are more whites now than there are natives, the population age structures are not compatible. At the age of 15 and lower, there's significantly more natives than whites. Once you get over, say, the age of 20 up to about age 50, there are more whites than natives. The reason for this, of course, is that whites come into the north to take jobs in the mining industry and, in the 1960's, in the expanding governmental apparatus. If you try to combine population indicators with labor force data, you're going to run into a very significant problem in the next ten years because there is a large number of natives coming into the labor force who are going to swell the labor force and will either increase or lower the percentage of natives of particular age groups who don't have jobs. There are not now many natives in the work force. One reason for this is shown by the educational indicator. For the natives 35 to 64 years of age, 68.5 per cent have had no schooling -- in fact, 94 per cent of all natives in that age group have never got out of the primary school level. This is rather significant because the mine owners in the north insist that the person have a grade nine education for a job. People are hiring on the basis of educational attainment. It's not wage competition that allows you to get a job. You have to have certain types of educational

attainment to queue up,as it were.

3.0 The Northern Development Group is the central planning and policy making agency of the provincial government for northern Alberta, and our job is to monitor and evaluate government programs in northern Alberta, to pressure the appropriate delivery agencies into changing their programs, and generally, to bring particularly northern perspectives into the various activities of the provincial government.

The first stage in solution of any problem or in the development of a program that is designed to solve it is the discovery of the problem in the first place. The kind of data and the kind of indicators that are needed to discover the existence of problems are largely nonconnotative. We would very seldom expect to discover a problem in northern Alberta by looking at statistical data. We would rely on field reports, on the representations that are made to the advisory body of northerners called the Northern Alberta Development Council, our own field work, the reports of government field people in other departments and also representations that are made to northern MLA's and to the Cabinet.

3.1 Having identified the problem or discovered the problem, the next thing which we have to develop inside our government is sort of a mood of resolution to solve the problem. There has to be some kind of commitment in general terms by the politicians to tackle the problems, to put the kind of resources into it that

are necessary to develop solutions.

At this stage of the process, statistical data generally are of very limited usefulness. It's a process of trying to move Cabinet ministers, to move them in the emotional sense, to somehow or other get them to make a decision in favor of the way we think they ought to go. There are various examples of the kind of information that can develop this resolution. Statistics won't always do it. It's a rhetorical problem at this stage to get them into the mood to resolve a problem. Once you have got that resolution, the major part of the battle is over and from there on, it becomes largely technical, and it's at that stage that statistical data become more and more useful. The next step is a detailed specification of the problem, and here is the point where you can begin to get statistical -- where a small survey of households or an examination of census data can help you pin down in more detail the nature of the problem.

At the program design and costing stage, again statistical information is very useful in establishing the size of the target population and the likely cost of changing the program. Once the program has been implemented, it is necessary to set up systems for follow-up and evaluation and at this stage again, the statistical data begin to phase out. If people can put a program in for a certain population and people are content with it, then this message will come back through the political processes. There is also room here for statistical data. The follow-up evaluation

stage will be a mixture of political and statistical types of information. Once the problem is considered solved, of course, the information system that's designed for it will be dropped so that there would be no kind of system of social indicators that we would envisage to continue in lasting perpetuity for northern Alberta.

4.0 We haven't heard very much so far in any of our meetings to do with values in social indicators. There is a school of thought that says social indicators should be value-free, but somehow values and value judgements have to be involved in the choice of indicators. This relates to my question -- are employment indicators really relevant to the native problems in the north? In other words do they want employment? Is employment or nonemployment the problem?

4.1 The primary need is to stimulate and strengthen the people program so that the native people in particular have some hope of adjusting to the pace of economic and social change in northern development. In general, natives are excluded from those occupations that have some kind of meaning in the community, and also from jobs that provide incomes that permit them to get above the squalor income level.

Many of the programs of the federal government are designed to enhance native employment, and this is a very major concern of policy makers in Ottawa. I feel we should have some type of indicators that would permit the people who are responsible

for these programs to judge whether or not in fact there is need of them.

4.2 If we are supposedly measuring social welfare in the north, are we in fact measuring their social welfare by measuring employment?

4.3 Are you saying that the natives mind having these types of jobs?

4.4 They might mind working at all. Maybe the reason you only have 30 per cent employment is that 50 or 80 per cent of them don't want to work.

4.5 When you use the term "lower level jobs", you're using the white middle-class WASP idea of lower level jobs. Maybe a woodsworker in the Indian culture is considered high class. I just wonder if middle class measurements, for instance, are really appropriate to every culture. We should ask the natives whether they feel they have low class jobs before we go out and measure and classify all these jobs. If they feel they are getting the lousy end of the stick as far as the job market goes, then go off and measure. I've heard a lot during the conference which says that the indicators ought to be a kind of monitoring thing to tell us if the problem exists. That may be the wrong way of doing it. We ought to define the problem without all these fancy indicators first, and then look at it in detail.

4.6 I think white values predominate in the north in the Yukon and probably will become even more predominant. There is a chap who did a study of Indians and whites who dropped from the

secondary school level and asked them to rank jobs in order of importance. I think the correlation between Indian and white children in five secondary schools in the Northwest Territories is something like 0.80 which indicates that if the children get through the school levels that far, they're taking on the values that we as the dominant group in the community have, which are the values of whites.

5.0 The type of people who are developing social indicators are unconsciously or consciously projecting into them their own set of values. So long as everybody is aware of this, I don't think this is a danger.

5.1 Information is power, and I wonder if there isn't a problem here in the design of information collection and interpretation criteria. If your values are very explicitly out on the table, mechanisms are being created which give an advantage to the information-controlling group -- the white middle-class bureaucracy.

6.0 It is important that we select at this time, or very soon, the right indicators which will help us determine just how successful our programs are, both in terms of the federal and provincial agencies and the native people. In formulating those particular indicators perhaps we can consult with all of the relevant parties in our concern for natives. I would say it is an urgent matter that you select an indicator which we can use, all of us. We really don't need economic indicators -- we need

social indicators which will measure the success of natives in the north and in terms of all our goals. That is pretty important.

7.0 I have been disappointed that the university professors have not been able to enlighten me any more than they have in terms of what would be the significant indicators which might be useful to us. Have I missed something?

7.1 I think that's very difficult to do because so much of our discussion up to now has really been related to rather general conceptual aspects of indicators, without dealing with some specific purpose or particular application of indicators. You may be over-optimistic about what universities can do.

7.2 We may simply have to get along with our own work. Is that what I'm really to do? I think that's my conclusion.

8.0 We know that there are lots of communities in the north that have bad drinking water. But it would be useful to know more. We know that there is bad housing in the north and it would be useful to know more about that. We discovered these problems without any statistical data. We discovered it by northerners standing up and saying "Damn it all -- come in and have a glass of water and see if it makes you sick". The stage where we try and tie the problem down tighter and define its magnitude, there statistical information is useful. Once, however, we have every northerner drinking good water we won't have any need for indicators on drinking water.

SESSION V: HEALTH INDICATORS

CHAIRMAN

C. Meilicke, University of Alberta

PANEL

Wayne McVey, University of Alberta
Jack McPhee, Alberta Social Services and Community Health
Alan Dever, Georgia Health Services

SESSION V: HEALTH INDICATORS

1.0 I would like to know how possible it is to have mortality data at the enumeration area level. I know in a sense you can't come around and ask how many people have died in the household in the past year so it would have to come from the local board of health or vital statistics. But I've often looked at the vital statistics operation and to get that, you would have to go through each death certificate and geo-code it because when people die they don't always die in the place where they live. It seems to me it would be most useful if data were geo-coded and passed on to Ottawa. Then you could link it with census data for small areas.

1.1 Some of the provinces have health areas and these are not census divisions. And that's a problem.

1.2 I think the biggest problem with these regions is that there is no thinking or structure behind the creation of regions so that within a department concerned with health, you have local health units, health regions, you have social service regions, mental health regions, regions for handicapped services, etc.

1.3 A basic source of demographic data is the registration systems that are required of the health plans, but the lack of accessibility to it is a problem.

2.0 I would like to ask if our friends south of the border have discovered any new tricks about the definition of indicators or the utilization of data that may be of some use to us.

We have two things in Georgia. One is the aggregation problem as mentioned here in terms of geographical units and the other one is the expediency with which the data are retrieved. We have disaggregation at the census tract level in our cities. We are able to map out, if needed, death rates by census tracts, infant mortality rates, all disease rates by census tracts. Then we have county registration systems and we can get data at a level lower than counties. So we've got good disaggregation. We've also got good retrieval. The question which bothers me is that with good retrieval and good disaggregation, we still haven't done anything in terms of health status indicators. I think this is where the problem really is.

I don't think there is any universal health status indicator that people could pick and use. Traditionally we've used infant mortality, expectations of life at birth and the death rate. We can look at the death rate of the last 30 years and it may have oscillated between 8.9 and 9.3 or whatever, somewhere around there. Infant mortality rate, depending where you are, has changed significantly in some areas but in other areas, I recognize it has not. The expectation of life -- what have we gained in the last 30 or 40 years, maybe two years, four years? What I'm saying is that we've really got to question what we're going to use as health status indicators in the future. I want to make the point that just because there is no change in a traditional indicator doesn't

mean that you forget it. You still have to monitor those things because we obviously don't want them to get out of hand.

2.2 What I'm leading up to is that we should not discard mortality statistics as indicators if that's what you want and if that's what you wanted to monitor and if that's what you want to look at over time. They're valuable -- in fact they're the most valuable thing we have right now. To just go out and automatically discard them would be a loss with respect to knowing where we're going. We've discarded infectious diseases all too quickly in favour of chronic diseases. I say this because viral infections and even some of the other minor infections are still creating loss of work and disability in our society just as much as some of the chronic diseases do later on in life. It's not as acute mind you and it's very sporadic, but it's still there, and it's still work loss and it's still a major concern.

2.3 What we've done in Georgia is to take a good historical perspective on disease patterns, and we've looked at the disease patterns of the 1900's, and it was clear that we could label all the infectious diseases which resulted in death. You could then get a good idea of the health status of the population by looking at infectious diseases -- in fact, you could see waves of epidemics moving through the States. If we look at 1940, we see new disease patterns surfacing, and right up into 1970, we get a whole new disease pattern evolving. Back in the 1900's we used to look at the house environment situation as influencing the health of the

populace. I think, however, by now a lot of the epidemiological books are now looking at it in terms of a person, place and time. You are the person because of your life style, your human biology and perhaps also because of some genetic mutation.

2.4 I analyzed the federal budget in the United States in terms of four categories: the system of care, human biology, environment, and life style. It turns out that 90 per cent of the funds in the United States are in fact being spent to reduce about 10 or 11 per cent of the problem,and when you're talking about a $37 billion budget and 90 per cent of that is maybe reducing 10 per cent of the problem, then I think it's time to look at our programs and try to stress new priorities.

2.5 I don't believe that we're going to have a major impact in changing people's behavior. I can tell you right now if you mention the word "social" you put up the red flag. It is impossible to use the word "social", whether it's social behavior, social marketing, social engineering, or social indicator, you just don't use that word without raising a general right wing clamour.

3.0 We look not at infant mortality so much, but at one-day mortality. This amounts to about 55 per cent of all the deaths that occur in the first year. We look at prematurity. Approximately, out of 85,000 births last year in Georgia, 10 per cent were premature. These then become our indicators. Not only that, we've looked at this disaggregated geographically. We've

disaggregated in terms of risk, in terms of socio-economic characteristics. We have the ability to link our family planning clinic records with the infant mortality records. So we can find out at any one point if this baby or that baby was born, and if it died three weeks later, then we're able to link that and pull it out immediately and find out what the problems and causes were. What I'm saying is, I think we will see in Georgia a drastic decrease in infant and neonatal mortality within the next two to three years when this program gets going in full-fledged fashion.

4.0 My own personal opinion is that we can almost write-off the entire adult population in terms of life style, change, and so forth. I think that if we direct programmes at that group, then we're really wasting our resources. There are going to be some people who are going to change, but it's going to be minimal unless there is a great change in our hedonistic attitude towards life.

I don't think we will see that change. We work in a pleasure principle situation. I'll give you an example: Lyndon B. Johnson had a heart attack, he was drinking, smoking. He had the heart attack and he said, 'Well, gee, I've got to change." So as he got further and further away from the heart attack, he started having a little more drink and started smoking a little more, and he finally died.

4.1 One thing at the Canadian Public Health Association that I thought was rather fine was that they put you through a series of questions in terms of cholesterol, blood pressure, smoking and so

forth and then gave you what your real age is and what your age would be if you changed. Maybe this is a bona fide way of trying to get some people to note that they are 33 years old, but are appraised at 47. That would be shocking. If that was me, I would quit something!

4.2 We're going to focus on some areas in which we will be able to see a meaningful change in a very short period of time, namely, venereal diseases, automobile accidents and so forth. Heart disease, cancer, stroke, homicide and perhaps, suicides are things that are much more nebulous than the ones that I have pointed out. We're going to try to attack some of those for which we can maybe see some short range change based on educational approaches and so forth. I think that the clue to success is that you can see your risk of dying of heart disease is for example 2,783 out of 100,000 if you're in the normal population -- but then after you go through this test, it says okay, now your risk is only 40 in 100,000. That is a substantial reduction in risk.

How that risk reduction occurs is obviously based on the input to that particular programme, and maybe a lot of people would not agree with what is being asked in the questions and what the conclusions are, but that comes back to what we've been talking about at the whole conference. You've got to establish that this is what we want and recommend this as what's important to us and state that we're going to look at it this way. I think that's been done in this case.

5.0 The discussion so far has been in a rather narrow context as I see it. What about mental health, what about environmental factors, water supply, air pollution etc.? Do you see these as being valid indicators that should be incorporated in an indicator structure?

5.1 In Georgia we look at houses -- dilapidated, crowded, those without plumbing -- and we relate that to tuberculosis, to infant mortality, to suicides, to homicides, and so forth. So we're trying to match these things, but this is on an aggregate level and to the State's perspective that's all that will be done. It's hoped that these kinds of things that we put together will be used as a prototype so that the communities can look at the same kinds of things. We really stress community involvement and we have to, for two reasons. (1) Our whole program of delivery of services is structured that way, and (2) we have the problem of maldistribution of resources. Our physicians are all in urban areas, our hospitals are in not highly urbanized areas but they're still in urbanized areas.

6.0 One thing I can say, is what health status indicators are not. Health status indicators are not the number of physicians per hundred thousand population. They're not the number of nurses, or the number of hospitals. There is no indication that there is a relationship between having more physicians and the decrease of disease. Similarly, there is no indication that having a hospital nearby is going to help you get emergency medical

care sooner.

6.1 Someone suggested by getting smaller hospitals distributed throughout the country, we could reduce some of the illness and disability. Now we've got small hospitals in every county but we still have the same disease problems and we still use the same formula to allocate more money to increase or decrease the needs of these hospitals. It's just perpetuating a system that is not going to have any impact on the disease problems within that state.

6.2 There is a big myth, a middle-class society myth, "go for your yearly checkup". You get well, you get better. It is a myth. There is no question about that. It may give you some idea of where you are moving but, for the most part, I think you pretty well know how you feel and how you're getting along. We perpetuate that and we run in there every year or every six months and come out feeling very good but continue to smoke and drink and eat and everything else and then we run in there again, and then all of a sudden, well, your cholesterol is getting up. You're really only testing your own body against the system -- that's what it amounts to. When you find out your cholesterol is too high, then it's probably too late anyway for any substantial change. So these are the kinds of things I think we have to look at. I think it's only through legislation that we can change some of this.

6.3 How are you going to solve these problems by legislation? We've shot down just about every idea that's been worth anything.

6.4 I guess what I'm trying to say is that there probably isn't a hell of a lot we can do with some of these problems, They are just going to move along through time. I don't see having any major impact in the next 30 years on cancer, heart disease and stroke. I just don't see that based on our present priorities and the way we distribute funds.

6.5 The system can attack 10 to 15 per cent of the problems. It can reduce illness and it can reduce mortality. The other system that we've just gone "hairy" on is emergency medical services. It's to overcome heart attacks, it's supposedly to overcome automobile accidents, suicides and so forth and that it may to a certain degree, but just creating that system is not going to stop those things from happening. It may reduce the advance, the time of disability in the hospital, if you've got the person in time, but it's not going to have the events stopped. The events still are going to occur.

6.6 I think you're unduly pessimistic about the preventative approach.

6.7 Better highway design or reduced speed limits made quite a difference in the accident rate. There may be alternative things to bigger and better emergency departments in hospitals in terms of the effectiveness on the total community however we're measuring it.

6.8 I think there is a kind of campaign that seems to have no lasting effects at all, People know that smoking, for instance, is associated with cancer. They stop smoking, and a year later

they're smoking again. But if you can get the awareness of the problem up to a certain level where smoking is no longer socially acceptable, you may get a very sudden shift and a lot will have been gained. You do have to persist when in theory it seems hopeless. If you can just get enough of an impact to tip the thing the other way, then it goes downhill pretty fast. That's an optimistic view.

SESSION VI: METROPOLITAN QUALITY OF LIFE

CHAIRMAN

Robert Foster, Dalhousie University

PANEL

Jim Stafford, York University
Ben-chieh Liu, Midwest Research Institute

Session VI: Metropolitan Quality of Life

1.0 What has been suggested in the industrial location literature written principally by economists is that certain kinds of firms, often referred to as footloose or high technology firms, are attracted by amenities or quality of life variables. Not that industrial development itself can be accomplished simply because we happen to live in a nice environment, whatever that might mean, or have a nice quality of life.

There are a number of areas throughout the world that have attracted so-called high technology industry, and one of the reasons is that they are nice places to live. These are virtually footloose industries with high value-added, low volume, low weight, low transportation, low water use, etc., and therefore they can locate wherever they wish, and they tend to choose areas in which the amenities are better than elsewhere.

We are trying to test this notion. What we did was to develop certain steps by which we can historically measure, within atomic sub-regions, the concentration of industrial location activity. In addition to that, what we've done is to survey businessmen all across North America in these selective industries. As well, it appeared useful, or interesting perhaps, to look at some of the quality of

life work that has been done by others, who have tried to develop some indices of major qualities of life -- in fact, to test whether or not those factors have any significance as far as industrial location is concerned and in terms of the empirical results of our survey. In other words, are the sorts of things that businessmen tell us in our surveys related in any significant way to the work that others have done in terms of identifying areas with a higher than average quality of life?

1.1 We are measuring what we think are factors considered important by businessmen, in terms of what they see, what they perceive, in terms of an industrial location.

1.2 I just simply want to say that I'm not at all convinced that you will ever be able to come to grips with what is or is not the quality of life. I'm not at all sure that term has any real and careful meaning whether or not it can be measured. By the same token, I'm not yet convinced that there is some acceptable set of statistics which can be called social indicators. I find it very difficult to make a distinction between social indicators and economic indicators. It seems to me that perhaps more appropriately, they ought to be called something like social statistics or economic statistics.

2.0 To me, "social indicators" is some sort of aggregate term which can be used at either a national level or a regional level or even a local level, while social statistics are a bunch of statistics -- some are not necessarily available at a national level, some are not necessarily available at a local level. Social indicators to me mean something which is of general concern. For instance, a social indicator could be a hockey indicator, could be transportation, could be environmental, educational, health and welfare, many many things. But if you're not slowly adding together, you've totally lost track. Of course, this general concern differs from time to time, from place to place, from individual to individual. However, we can still obtain some consensus on what are the most important things.

2.1 Economic indicators are not the sole type of indicator we should look for but, in a society like we have which is so complicated, we should look for more. The basic concept here is really to try to see whether people are feeling satisfied or happy, and to measure this. It is impossible to measure the perceived quality of life or happiness of each individual because everybody has his own definition as to what feels good or what he thinks is important. Therefore our work in the United States is concentrating measurement on the physical side. Well,

but what are we going to do? I do not deny the importance of psychological factors at all. I think quality of life has at least two main ingredients. One is the physical inputs and the other is the dynamic inputs. But we cannot run before we learn how to crawl.

One issue is the selection of indicators -- whether there should be one or multiple, and I prefer multiple indicators to single indicators. But I don't want indicators to be too many to get out of hand. We know whatever socio-economic indicators you are going to construct have to relate to individuals.

Now we come to what the uses are of an indicator. How can it be used? What is the importance of this indicator? First, the importance of an indicator is to identify our weaknesses and strengths. Just like a doctor giving you a physical examination every year, and then telling you what's wrong. If we can identify the weaknesses and strengths of each urban area, then the politicians or policy makers can see those kinds of weaknesses and try to cope with those kinds of problems. So the first use of this indicator is to show what is going wrong.

A second use of this kind of indicator is to have decision makers set up policy goals, objectives and priorities based on this information. Every major area has its own problems, and policy makers have to try to take care of these kinds of problems, but they are subjected to certain kinds of constraints.

Do they have enough money to do it, or do they even want to do it? Whether politicians use this information or not, does not matter. Just like you can lead a horse to water, but whether the horse will drink the water or not , is another matter. Out of this kind of indicator, once it is established in a systematic form and in a very well organized model, you can update this and measure changes over time.

This morning I heard some people ask whether we should develop macro indicators or micro indicators. I think basically you must consider what you want this indicator to be used for. You have to set up your objectives to use these indicators to begin with. Then you define it and use social statistics which can show or measure the changes in these indicators.

3.0 I think I disagree with the distinction made between a social indicator and a social statistic. I conceive the social statistic to be any number -- there is some number out there, and as soon as that number means something to me it becomes an indicator, although I don't make the distinction in terms of aggregation or disaggregation. I think I can have an indicator of an individual thing. For example if my eyes are flashing, that could be an indication that I am angry perhaps or merely that I have flashing eyes, depending on how you look at it. The indicator is the way you look at things within the model you have. We're all walking around with models of the world in our

head. We can have simple models or complex models. I think in the past, we've tended to have fairly simplistic models so that this indicator is an indication of a certain variable that we can't get at and that is all, and that's as far as we went. Now economists and sociologists are trying to develop more complex models of the world and they're seeing that these indicators are interacting, that they're reflecting changes in that particular model.

The reason we're using indicators is because we can't get at that model itself. It's not measureable. We have to turn to the indicators and then look at the indicators to gauge what's happening in the model. Problems here then are twofold. First of all, there is the indicator. Is a good indicator a valid indicator of that model? The second problem is whether our model is right. Does our model represent and simplify the world we are trying to measure? When we play around with indicators, I disagree with the view that we shouldn't do anything till we know what indicators we are going to use because there is just no way of doing that -- things are just too complex. I believe that actually we're moving in the right direction. We're setting up models, some of them simple, some of them complex, some of them better than others. We're trying to select our indicators. Then by working with these things and criticizing each other's models and indicators, we can gradually

improve the art.

I would like to make one comment about quality of life as a concept. I disagree that we as sociologists and economists should use that term just because the public understands it. We should develop our concepts to try to fit reality, and we should try to select the labels that are suitable for the context. Quality of life is not a one dimensional thing -- it's a melange. We should throw out "quality of life". Maybe we should talk about "quality of the environment" or "liveability of cities" or something like that.

3.1 We should be able to communicate anyway. If it's a melange, maybe that melange needs a name and maybe "quality of life" is the best label for it. Those are the dimensions that we're trying to measure.

4.0 The purpose of this workshop has something to do with disaggregating through the national data bases down to regional bases and then to the smaller levels such as metropolitan areas. I think the reason we're here is because all of us have been looking at this question. Some people have tried to develop a series of indicators of urban unrest. This is the sort of thing I think we should be asking. And, for one thing, how do these indicators relate spatially? You've chosen the area called the metropolitan area which is a CMA or whatever you call it. This is a non-homogeneous area.

4.1 That's right, and you know, when it comes to location, there are all sorts of interesting political attitudes in other cities. Particularly in Canada, we have isolation, community isolation. I think it's a very important question in terms of the quality of life. It's an important indicator to try to capture.

4.2 I have no quarrels with the approach described earlier. I think that is very fine and very interesting in terms of looking at comparisons with American cities. I think it's a mistake for us to use that type of approach in Canada. There are quite different conceptual paradigms in Canada, and I think we should be very selective in the choice of indicators here.

The isolation aspect I mentioned earlier is very important in Canada -- the fact that some urban areas are much more isolated than others. The climate, of course, is also extremely important because we do have enormous disabilities in terms of climate. I'm just throwing out all these things because I think this is the sort of thing we should be discussing and not the generalities which we heard earlier in the morning.

Regarding the question of social unrest -- the question is potential social unrest. I think that the number of false alarms, for example, is a superb example of the degree of discontent and alienation. These are questions that are very much urban questions.

4.3 Remember I said in our study, all we can do now is measure the physical side rather than the psychological side.

4.4 The problem here is, if you start dealing with these physical factors, then inevitably, you are imposing on people a judgement as to what for them is a good quality of life.

4.5 No, I said our objective was to see if we could improve those physical factors for the people in the community.

4.6 But you see, if you use these as the measure, you make a decision as to what "quality of life" means for individuals or certain groups of individuals. If you take the situation where a town wants to encourage a high technology manufacturer to relocate there, then by determining some set of physical criteria which you have already said defines a high quality of life, you have in essence imposed those kind of criteria on that town.

4.7 I thought I made myself pretty clear. Our purpose here is to see on the physical measures, which metropolitan areas ranked relatively higher than others. So we tried to measure the physical side.

4.8 What you've done is given a statistical profile of different metropolitan areas, and I think that's <u>all</u> you've got. I think unfortunately the word "quality" got in there.

4.9 But there is a thing which I think can be legitimately called "quality of life". I am the type of person who can have a

high quality of life in any environment because I'm hardy and generalized. There is no getting away from the psychological thing. So that here a high quality of life is the psychological attribute associated with a person in his environment.

4.10 I think we have probably made the point quite clear. I don't think we're really measuring in either type of study, the quality of life. I think your point is absolutely correct. It's the physical summary of certain characteristics of metropolitan areas.

5.0 I guess I want to change the direction of the discussion a bit. There seems to have been an assumption here that the growth of metropolitan areas is part of a continual pattern. Nobody is suggesting that cities are going to dissolve. There doesn't seem to have been any indication as to what desirable model of a city would be in line with either quality of life considerations or economic considerations. Has there been any work done in that area on that level? To bring it to a Canadian level in western Canada, we are concerned with sizes of metropolitan areas. The qualities of life in those areas are contrasted or compared with metropolitan centres in eastern Canada. Most Canadians have no interest in the kind of metropolitan environment that seems to be growing in the United States -- we make value judgements about that. The big worry is about conditions in Canadian cities changing to match the metropolitan

world trend. I don't think we're really in danger as yet, but we have obvious preferences, for example, Victoria versus Regina, for living. I don't know that the reasons for those preferences have been well defined yet. Industries are going to be concerned with those issues.

All of the provinces of western Canada and the government are very interested in learning what kinds of things would attract more investment to western Canada within our metropolitan centres. What are the conditions? What are the qualities which would enable that to occur? And if one derived those, then one might have some bases for promotional activities all across the country.

City planning is concerned with these issues. Certainly, there are municipal planners -- certainly there are now regional planners in Canada who actually intend to try to develop and control patterns of growth and to develop and limit the size of cities. What contribution is the social indicator movement making for the purposes of such planners?

5.1 There is quite a bit of work that's been done. In the United States, for instance, there has been a remarkable change in industrial locations. It seems that the concentration of industry in the large urban areas has changed dramatically over the last 50 years, and that new industrial locations are taking place in much smaller urban centres than in the past. On this

survey that I did, we asked questions framed in terms of a certain place. Responses were overwhelmingly in favor of smaller urban centres and complete avoidance of large urban centres, so maybe it's self-limiting growth.

6.0 I'm sort of wondering about the psychologies of neighborhoods for a second. We've started work in the Halifax central region, defining socio-economic neighborhoods for delivery of social services. I work for a social planning body not in line with the government -- it's a private thing, just recommending to the government. One of the things we're trying to do, or trying to start to think about,is how to connect up with other similar size metro regions and get some common definitions of neighborhoods so we can start getting comparative data. We aren't even at the point where we are getting data on our own neighborhoods yet, but those data are not going to be of much use unless we can say they compare favorably or unfavorably with similar neighborhoods across the country. If other people are like-minded,we're getting into that sort of thing. We would like to find out what other people are interested in.

6.1 I don't want to open up the question of what is the quality of life again, but just one thing is bothering me. Maybe one of the panel members can speak on this. Assuming you have collected all these urban indicators, and I'm glad to hear you

all say you're not measuring quality of life anymore but are creating a profile, by what criteria then do you actually rank the different urban areas? Is there some value selection in it? That seems to be a problem.

6.2 In my study, we do have an indicator called per cent of people travelling to work by either bus or automobile. To go to work by mass transit systems is supposedly a good thing because you can save energy but I don't know. If you travel to work in the automobile, we consider that a bad indicator. Therefore, we are having a heck of a time.

7.0 I have an indicator called a marriage to divorce rate indicator. If some individuals cannot get a divorce, they are going to be totally unhappy, right? But for the community, we consider the lower divorce rate better; therefore, the indicator is kind of contradictory. It depends on how you are going to use it.

SESSION VII: JUSTICE INDICATORS

CHAIRMAN

Tim Hartnagel, University of Alberta

PANEL

Alex Michalos, University of Guelph
Evelyn Gibson, Federal Department of Justice
Peter Engsted, Federal Solicitor General's Department

SESSION VII: JUSTICE INDICATORS

1.0 A large number of the indicators that are available are published by Statistics Canada and other information agencies. These institutions have the momentum, they collect data on a regular basis, and put out publications that vary a little bit over time to show different sorts of refinements in the data.

I'm interested in seeing a great deal more dialogue between the users of the information regarding the potential applications of indicators, and the agencies and institutions which develop the kinds of data bases that we have to work with and that we go to when we're looking for indicators of various crime related phenomena in the work we are assuming.

2.0 "Offences known to the police" is probably the most used indicator and it's used to indicate quite a variety of things. To believe that it is always a negative indicator when "offences known to the police" go up 15 per cent is part of conventional wisdom. It seems to me however, that as a result of victimization surveys largely in the U.S., some of the conventional wisdom about these indicators is really coming into question.

It might be, as they discovered in Portland recently, that the 20 percent increase in crime was a 20 percent increase in the reporting of crime, rather than reflecting badly on the community and its morals and reflecting badly on the police department. That might be a very positive indicator which suggests that the police are

doing more, are perceived better by the community, and that citizens may be more willing to report crime than in the past. The increase in crime rate could have an interpretation or at least admits an interpretation quite different from the one that has been conventionally employed.

The other thing that's another sort of a bug-a-boo that concerns me with "offences known to the police" is that the police departments, like other departments of government, have to justify budgets, and we're continually confronted in the press with statements that rapes and robberies have gone up and crime is rampant and burglary is up 47 percent. It seems to me that we're inflicting a lot of extremely or potentially misleading information on the public and various subpublics. Greater attention could be given to developing rather more refined indices and publicizing these kinds of things with the appropriate caveats so that the public is as accurately informed as possible.

I find it pretty unlikely that the police department will approach the community with a 15 percent increase in crime and treat that as a positive indicator. I think that is some time off yet. But this interpretation is possible, and through victimization surveys and other ways, we may improve our understanding of those kinds of indicators.

2.1 I would like to add a point to what has been said about increase in crime not always being a bad indicator. You can increase police efficiency with more policemen foiling more crimes effectively

and so on, which may lead to discovering more crime than before and clearing-up more crime, but the clear-up of crime may not increase as much as the crime discovered so that it looks as though the crime rate has increased.

In fact it may genuinely be a reflection of the increase in police efficiency. This is a particularly important point for those people who put far too much weight on clear-up rate. It doesn't mean all that people think it does.

3.0 Here is a problem with Statistics Canada publications. There are two documents that give accounts of persons charged. One comes out of the court and one comes out of UCR reports. The number of persons charged in one is radically different from the number of persons charged in the other. You really don't know which is a better indication. You can't follow through because you can't trace them back through the other documents. You only start with it half way through.

3.1 This is the problem with many administrative things, and statistics are no different. The only way you could overcome this would be by an actual survey, let's say, of the people that the court and the police net in the first instance. Frankly, these are problems of cost and cooperation. There are often other priorities and budget considerations. It depends on what the system is but, where you have, say, ten systems or more, we have overlapping jurisdictions and to ask the person a lot of details like marital status,

socioeconomic status, etc. like some of you would like, is a problem. I don't think you have the highest priority.

3.2 A lot of tinkering with the system costs a lot of money, but in the meantime we're spending a lot of other money based upon the very use of the statistics that we have. If Statistics Canada could just give us some way we can make an adjustment so that we can get some plausible flow through the whole system - that would help.

3.3 Right now, what we get is a duplicated account. If one guy is charged this month, next month and then the third month, that counts as three persons charged. Take a simple case and imagine two different worlds, one in which we get ten persons committing ten offences and a different world where you've got ten offences and you have one crook. I'd say that this society with ten persons charged is worse off than this society with one crook who is very active. We don't know in Canada, as long as you give us a duplicated account of the persons charged, how much criminal activity we have to deal with and we don't know how many crooks we have. We could have one sort of world or we could have another.

It seems to me that it would be a little thing to put some kind of number on the persons charged. Some kind of identifying numbers so that we would know whether in fact it's this sort of world or that sort of world.

3.4 "Persons charged" is merely an indication of the amount of crime they've committed.

3.5 No, it should be an indication of the number of criminals. You could have separate tables showing the person doing it once. There is another kind of purpose for doing this sort of thing - the idea of base transactions. To evaluate the legal justice system, we want that link so you can tell whether the police are charging the right people and whether the people are getting convicted once they are charged.

3.6 You could have two separate tables. One based on the number of distinct persons and one based on somewhat different crimes to which people are going to fall victim. You can't combine the two without adding a dimensional flavour which we haven't got.

4.0 There is a problem with correctional institution statistics. Right now transfers are included with new admissions and discharges. You have outflows to the outside and to the jail next door, or inflows from one prison to another prison and from outside. That doesn't say how many distinct people you're locking up or letting go every year. Some people get counted more than once.

For example, in British Columbia sometimes a movement between jails is recorded as a transfer, and sometimes it's recorded as a new admission. Also, a guy can leave an institution and be released on to probation. The institution releases him and later, he's released from probation, and gets double counted in some places that way.

4.1 What I would like to raise on prisoners is that we don't even attempt to count the number of untried prisoners. Only sentenced prisoners get counted. Let's know the number of people awaiting trial

and how long do they stay there. That's a very good social indicator.

4.2 Another thing I don't think we have is counts by race.

4.3 How do you count race?

4.4 We'd only have to count by black and white which would be natural.

4.5 How do you determine black and white?

4.6 The same way they do it in household surveys. The fact is that black and white are counted in a lot of places now unless you're willing to say that anyplace they count black and white is a waste of time. Anyhow, we won't know if we've got the races in our society if we don't even try to count them. We won't know if the Indians are treated as whites if we don't figure out how they are treated. Maybe we can't do it very well but I would like to try and find out some way.

5.0 In the characteristics of the convicted persons in the court statistics, if you look at some of the information that is collected, it's not very good because things like occupation and education result in such large percentage of "no response" or "no information" that you wonder about the categories where you do have information.

5.1 I don't think it's a question of whether they are very good or excellent; I think it's a question of whether the data are good enough for the particular problem at hand. One of the ways of getting good enough data is looking at how people identify themselves, and then assume that's reasonably close and worry about the problem of what somebody means when he says "Canadian". The fact that a certain

group of people identifies itself by a certain fairly common tag is surely of social importance.

6.0 Another thing that would be nice to have is the native perception of crime or the visibility of crime in the native milieu.

7.0 What I would like to know is whether there are any relations between the amount of exposure the newspapers or television give to criminal activities and the response you get when you ask people if they are worried about crime, if they lock their doors. How much of this sort of attitude is generated by visibility and how much is generated by the actual frequency of crime or the actual risk?

8.0 I would like to raise three thorny problems.

One is that in doing our research and in using our indicators for making policy decisions we don't consider carefully whether the offenses known to the police are an indicator of the volume of crime in the community or whether it's simply output generated by the agencies of social control. That is a fairly important distinction conceptually and analytically and also may be an important distinction in terms of the utility or the validity of the measures we employ. Aligned with this is the concern with the calculation of rapes. You look through the literature, you find an endless series of articles that calculate rates per one hundred thousand population, sometimes it's age seven and above, sometimes it's total population. We make certain caveats, and then we go ahead and use them anyhow, and I'm wondering if we're not terribly careless.

Demographers have over the years taken great pains to

develop sensitive and valid indicators and in particular they have looked at the denominators used in their rate of calculations and I'm wondering if there hasn't been in the criminal justice field a singular lack of creativity in attempting to develop appropriate denominators for our rate calculations.

Now there has been some research where auto theft has been related to the availability of autos. That makes intuitive sense and it makes a big difference whether you use people or autos in calculating the rates. There have been some other bits of research that have attempted to introduce new ways of calculating rates that appear at least to improve their utility and their meaningfulness for those who want to make sense out of these kinds of things. That's an area that I would like to see developed and one I think that would serve people who use these data extremely well.

The other thing is, I think, that agencies and components of the justice system have to give somewhat more attention to their data needs and the data they collect. I had occasion to do some research for the Juvenile Court and they were intervening on a daily basis in very significant ways with juveniles who came to the attention of the court. They had files, virtually, tons of paper pertaining to these transactions and activities but they couldn't answer the most elementary questions about what they were up to. They didn't know what were the characteristics of the kids coming before the court, what kinds of dispositions were being handed out and by which judges and to which types of juveniles, etc. It would be extremely helpful

if these agencies really took a close look at themselves and started to develop the kinds of data bases that are needed to ask and answer these very elementary but important questions about their activities.

8.1 The most awful elementary system of data gathering in this field does not get any mention and that is in the correctional statistics where there is a figure for adults and there is a figure for juveniles in which the provinces are added together regardless of the fact that the age at which you become an adult is different in different provinces. So these figures are totally meaningless.

9.0 I just want to point out that in the discussion of justice we always degenerate to discussions of crime. If we're serious about social indicators and indicators of well-being, then it's time that people began to rethink what they are talking about and what they are using and begin to devise measures of justice, whatever that may be.

10.0 Because of the way the system works we tend to focus on certain types of data in practice, and should be focusing on others. One example is that we focus on crimes against individuals rather than crimes against businesses and governments. If we're really concerned with criminality then the latter is a serious issue and one which rarely gets the attention it deserves. Another question is whether one should focus on offences. A serious case can be made for focusing on events. Those who have studied the processing of the criminal justice system will know that one event can lead to multiple offenses.

11.0 The adequacy of an indicator can only be assessed within the context of whatever question it is you're raising. It seems to

me a little discouraging that there's a great discussion of indicators in the abstract without there being more discussion of what it is we want to measure, what it is one wants to indicate. Presumably that will derive from the kinds of information you want to know in the kinds of policy decisions you might have to make.

11.1 Let us distinguish general purpose social indicators from those indicators that one would want to use for policy decisions or policy considerations.

General indicators are in themselves something that are pulled away from particular questions. They're supposed to stand the test - we know they don't - but they're supposed to stand aside and be useful in lots of contexts. If you ask for general purpose statistics, which is what the thrust of the request to the so-called social indicators movement has been then, you can't expect those indicators to help solve particular problems in the context of the things that people really use. That is one of the reasons one really has to draw the line.

11.2 It seems to me they're being used in that way in any event and I think . . .

11.3 They are being misused.

11.4 . . . well okay they're being misused and it seems it's incumbent upon those of us who are involved to leap up and wave red flags periodically and point that out.

12.0 It seems to me that the issue of justice has been tied to the issue of crime. Justice has, in and of itself, not necessarily all that much to do with crime.

12.1 I would like to say that the Department of Justice is trying very, very hard to get some civil judicial statistics out. Far more people are affected by the civil law than the criminal law. In fact, there is matrimonial law, minority rights, discrimination, all kinds of things, and on this we have no statistics at all, and we're thrashing away trying to get some out. We are being told there is no money for this.

SESSION VIII: PROBLEMS IN SOCIAL INDICATOR DEVELOPMENT

CHAIRMAN

Betty Macleod
Ontario Institute for Studies in Education

PANEL

Marvin McInnis, Queen's University
Judith De Neufville, University of California, Berkeley
Stephen Fienberg, University of Minnesota

Session VIII: Problems in Social Indicator Development

1.0 The development of social indicator systems by the statistical departments of federal governments has become a fashionable preoccupation in developed countries of the world. In Canada recently we've joined the club at Statistics Canada by compiling Perspective Canada with which you are probably familiar. There are about 345 charts and maps and tables that deal with various aspects of life in Canada in a manner which is designed to highlight factors affecting the well-being of Canadians throughout the country.

In appearance, these types of statistical compendia are a direct consequence of the literature dealing with the quality of life and ways of measuring it. From an awareness which was initially generated by reaction to explosive social, economic and political change associated with the space program in the United States, a concern about the disruption of social values and goals spread widely throughout industrialized society. Technological change, pressures of population, unemployment, the threat of pollution of the earth's environment, and individual perceptions of quality of life have all encouraged re-direction of thinking along qualitative lines.

1.1 A great deal has been written about what elements contribute to quality of life, what is worth preserving within our present social framework, about selecting appropriate areas of concern, determining priorities, and establishing criteria for

selection of statistical series of indicators by which to measure the dimensions of, and the alterations to, concern areas.

Recently, and probably a direct reflection of the problems encountered in development of systems of social indicators, attention has been directed toward difficulties which arise in designing and extending statistical theories, bridging information gaps and other operational aspects of the system.

I have tried to define general areas within which various problems fall. These are the areas that I have set forward: selection and ranking of concern areas; the adequacy of statistical theories; and desire for and limitations on the collection and use of regular and continuous trend statistics. At this point I'm not going to elaborate my ideas further but rather ask the panel to fill in some of the areas, some of the problems within these areas, to outline what they see as ways of dealing with them if that is possible.

2.0 All right, I would like to talk a little bit about the validation problems because I think this is probably one of the most neglected problems in social indicators. Just to start with a vague definition -- because I think validation is a very complicated problem, and I don't want to pin it down too much at this moment -- we're talking about the problem of whether an indicator means what you think it does. I'm not talking about whether it actually measures what you want it to very successfully -- that's another whole kind of problem. This whole question is not addressed

systematically in the indicator literature. People talk about it, around it and so forth but they don't actually deal with it systematically so I've tried to think through some of the things that could be done by people who write articles, by people who read articles, by governments who could present statistics that might be more conducive to dealing with this validation problem a bit better.

There are several reasons I think that this problem is ignored or is not dealt with squarely. One primarily is that a validated indicator is not a routine mechanistic kind of process -- it's something that requires operative assumptions to start with, to set up the framework to do it; it requires in the final analysis, judgement to decide whether the thing is valid, and it's not the kind of thing social scientists like to admit they have to do. They prefer to stick with things that sound very scientific.

Another problem is that validity is not something that inheres in a particular indicator. It has to do with the indicator's views and the indicator's users so that the person presenting the indicator cannot ultimately decide whether this is valid in some all-purpose terms.

A third reason is more subtle but I think almost the most serious, in that it has to do with the fact that the constructs we use to measure things and the concepts that we have about the world are very much interrelated. What we know how to measure determines somewhat what we understand, and what we understand

determines somewhat how we decide to measure it. So if this is true, then indicators and concepts that they are supposed to represent would be expected to be related in some sense. So the question of validity goes back to the question of whether the whole framework in which you designed the indicator, in which you think of the concept, is the right framework. That's another whole level of validity which is clearly not one that can be determined by the scientific method. It comes back to the values in your frame of reference.

Just to quickly go over what I see to be some of the problems in validation -- the basic problem is that you have a construct in any indicator. It's a set of rules for collecting data, for putting data together and for getting a number at the end. You're trying to equate that number somehow with that indicator or with an idea. These are two separate kinds of things. How do you go about doing this? You have to do this with the aid of theory, but by "theory" I mean all kinds of theory ideas -- your ideas about how things work.

There are typical kinds of tests that you can use for validity. The simple ones, I suppose, are just simply inspection. You can make a determination or determinations on the basis of your own intuition if you want. Another level you can look for are indicators of the same thing collected by other methods. Compare those with your indicator or the movements of those with your indicator, and if they coincide, it's more likely to be valid.

You can also look at your indicator in relation to the movements of different things that you know to be connected or you believe because of your theories to be connected. If you know anything about whether one should move faster or slower or after or before whatever the other measures, you can get some kind of validation. In other words, should unemployment rates go up when job vacancies go down? If you find that these things don't behave as predicted, that may be again another possibility for validation.

The fourth kind of thing is the application of a stimulus to your system that would have some predicted effect. In social indicators, these are kind of hard to find. You need something like a change in the law or something else which would produce a different kind of effect. You might be able to use that as a validation procedure.

What you need to do to make this work is to avoid the purely empirical measures. In other words, there are several kinds of purely empirical measures that I see being used all the time as indicators. One sort of measure is chosen because it correlates with something and often you don't even have any idea what it correlates with. You don't have any concepts that you think it correlates with.

2.1 An example would be the leading, lagging indicators listed in the business cycle. The business cycle was defined by the indicators that were moving around. There wasn't anything that said that

the business cycle was so and so. This indicator indicates it. What happened was there were a bunch of indicators that seemed to go up before a bunch of other indicators, so it's called an indicator of the business cycle.

Another kind of empirical measure is the kind that comes out of a rushed process of doing some kind of program analysis or something where you know you are supposed to argue that something is socially disorganized -- the only data you can find is how many people are on welfare and what the crime rate is, so you figure that has something to do with it so you stick it in there, and pretty soon, that's what social disorganization is. It's the number of people on welfare. You've never actually defined social disorganization. You've never said the extent to which those indicators might or might not represent that. There is no real way to validate it because at the end of your analysis, social disorganization is what your indicators are.

A third kind of empirical measure is the sort of thing where you are trying to measure, say quality of life, or housing, and you may have a definition of a concept or at least an idea of what the concept is, but you don't actually have it worked out so you could have a measure which had an identifiable relationship to it. So what happens is that you, in an ad hoc way, put together pieces. You have a weighting system which might be quite arbitrary, for example, the Standard Budget which is a "level of living"

indicator used in the United States. It has components in it which have to do with how much housing you need, how much clothing and so on. Each component is chosen in a different way just depending on what you could find out. The housing component is chosen according to the American Public Health Association's standards. The matter of clothing is determined by what people actually buy. These are completely different concepts of choosing the components, and then they are put together and they are weighted fairly arbitrarily.

I would argue that if you're interested in validating indicators, you need to define the concept that you're trying to measure; you need to define the organizing principle of the indicator and the extent to which you were able to get somewhere near that. In other words, the measure of poverty in the United States is supposed to be a measure of the level of living of individuals, and that is the principle on which it was designed. It may or may not work on that basis, but you could describe it that way, and people would understand at least what you were trying to do. But then again the concept of poverty is another thing beyond that.

So you should try to recognize what the tension is between the indicators that you manage to produce and the concept that you would like to have them represent and the nature of the relationship. There are different kinds of relationships

that your indicator might have to that concept. It could be something like the GNP which tries more or less to represent the whole concept of national product. If it's supposed to do that, then it should move the way that concept would move most of the time.

On the other hand, you might have an indicator which just represents part of the concept. Under certain conditions, it would move the way your concept would move as long as certain things stay the same. Or it might be just a correlational relationship. If you're writing about indicators, I think it's important to suggest what this relationship is so that the people who are trying to use it will not then take a correlational kind of indicator and use it as a causal one. Basically I think you have to know why an indicator works in a situation if you're ever going to figure out when it isn't going to work.

2.2 Beyond this, we have this problem of the construct-concept interaction. This problem has to do with the idea that we understand what we measure, and we measure what we understand -- these things are very much interconnected. For example, take the unemployment measure. When it first started in the United States in the '20's, they didn't have any idea precisely what unemployment was. They had a vague idea that people didn't have jobs, but which people and what circumstances? Well during the '30's they started developing an idea of what sort of policy you should have and what sort of problem you have. So you started to

be able to make decisions about all sorts of marginal people. Should you count people who had one hour of work per week as unemployed? Well, they decided "no". During the depression, one hour of work a week wasn't bad. Right now, U.S. unemployment rates count people as employed who work one hour a week. Your understanding of what the problem is at a given time has a whole lot to do with what you decide to call "unemployed" or what you decide to call anything. It's not something that's purely defined by some rational system -- it's defined by where you are at a particular time.

Given that these things are interrelated -- the concepts that you have and the constructs that you use -- you have to ask this question: are the concept and the framework which you are using the ones you want to use? It may be completely begging the question to talk about whether these two mesh.

2.3 Take the example of poverty. You can measure poverty purely as income and to do that is to say poverty is a question of material well-being, nothing more. It is to suggest a policy of income support. To measure poverty as relative income, say half the medium income or something like that, suggests that poverty is a social psychological problem that is determined socially and that therefore some system of re-distribution of income is required. To measure poverty as some kind of behavior characteristic or social characteristic is to suggest that the

problem is a cultural problem, a problem of deviance, and that the solution is in the domain of social work. To measure poverty in terms of power, openness of opportunity and that sort of thing, is to suggest that the whole system needs re-structuring. The point is that the measurements you decide to use have a whole lot to do with how you look at the world and what you want to do about it.

2.4 To summarize what the implications are for people designing, writing articles about indicators, and proposing indicators... I would say that first they should prefer measures that have some sort of theories involved in them to the extent that they can -- that they should define as far as possible the relationship between the measure and the idea. Probably very simple measures are better for this than very complicated measures -- there are fewer ways it can go wrong. They should try to understand and expose their own frame of reference.

One tends to take for granted one's frame of reference. But let's say a sociologist looking at the problem of discrimination will take the whole economic system as given and explain everything in terms of the social structure. An economist if he happens to be interested in that problem, would take the whole social structure as given and then proceed to explain discrimination in terms of the market, workings of the market.

The questions to ask are, "What am I assuming as given ?" "What am I assuming to be manipulated?" "What am I trying to explain?"

2.5 The people who write these sort of articles can suggest what other people can do to test their measures when they do start using them. They could say, " I would expect this measure to be related to this measure." And if it isn't, then the user at some later date can say, "Well, that doesn't quite work out."

For statistical policies, I think this suggests a number of things. One is that the duplication and overlap of statistics is not a bad thing. In the United States we've resisted over and over again the desire to standardize, coordinate, and integrate all our statistics. Basically I think that's a good thing because this makes it possible to perform these sort of validation procedures.

A second thing that I think is very important is the integration of the indicator with a world view if you want, a whole value judgement about how the world works. It comes to the real question as to whether there should be something left to the experts. The indicators in the United States that have been used for policy have had quite a lot of public or semi-public input. I think this is a critical part of the validation process for indicators that are going to be used in decisions.

The third point is that the presentation of statistics in government publications should not just limit itself to questions of reliability of the data -- they need to confront the question of validity. The argument that I'm sure people give is that "Well, government statistics are meant to be general-purpose.

You can't start talking about what this indicator is supposed to represent." I would argue that that is not true, especially when we get into social indicators publications. True, population data, the number of housing units, are general-purpose, but when you start talking about housing given by crowding, or wage rates by sex, or unemployment by race, those are very pointed indicators designed to focus on particular problems.

It is true that if statisticians start talking about these concepts clearly in their publications, there will be a question as to whether the statistics are neutral, and there is a whole political issue involved here. But I see this as a long-term objective to try to change the norms that we have about statisticians and what they should be doing, and to try to see if we can't accept the idea that what statisticians are doing is focusing on specific problems. I think this will be easier to do if we have a more open process of designing indicators in the first place.

2.6 There may be some serious questions to be asked about the necessity of having indicators, I mean the construct being absolutely continuous over long periods of time. To the extent that what we measure and how we measure it may change in the context of society, or our understanding of society, it may be completely irrelevant to maintain the same construct for thirty or forty years. Things like the unemployment rate have been

changed. My feeling is that it might be much more valid to change an indicator than to keep it the same. It might be much more likely to represent the same idea in many cases if you change it than if you don't change it.

2.7 The final thing has to do with cross-national indicators -- the problem of getting an indicator which is valid in one country to be valid in another country. First of all, if it is not developed in that country, it will not have the sort of validation process that comes through the process of development. Basically the problem is that the meaning of any particular construct or the meaning of any particular idea tends to be very, very different in different countries. For instance, the literacy rate, which is used a lot for cross-national comparisons, will vary according to the age structure of the population. It may vary according to a whole lot of other things -- like when people go to school. Also the divorce rates that often are used across countries have a lot to do with the official attitudes towards divorce so it isn't necessarily an indicator of the stability of marriage.

It is possible that comparing <u>different</u> indicators across different countries may produce better comparisons than comparing the same indicators across different countries. And when basically you are doing cross-national comparisons, you should be talking in terms of relationships between indicators and systems of those countries rather than individual indicators.

Again that gets back to the validation question that an indicator is embedded in the theory that you're using -- in the whole construct that you're using.

3.0 I think the kinds of things that I'm most concerned about, because they represent my own professional orientation, are really in some ways orthogonal to all the things we have heard today. They assume a particular data base. They assume that a data base exists -- that numbers have been gathered and that series of indicators have been put together. I guess that in that sense, they also assume that what you have to present has been validated in some sense -- otherwise you just present nonsense.

The things that I'm most concerned with would go under the label of analysis and presentation. Let me deal with the analysis issue first because it is sufficiently technical that I only want to mention it and go on to the presentation issue which is, at least on the surface, less technical. I'm a very strong advocate of the bold use of multivariate statistical analysis and model building with indicator data, the idea being that one needs to build models linking indicators and measuring how indicators in aggregate or disaggregate forms of various sorts are changing. This requires not just the kinds of things that people have done in the past -- not just things like multiple regression or ideas of correlation in simple graphs of time series -- but things like time series analysis, spectrum analysis, etc. I also mean concepts and techniques relating to the analysis of

multi-dimensional cross-classifications.

We are in need of development to provide a link from the sophisticated modes of time series analysis, which are geared up to find exactly the kinds of things that people talk about when they talk about what is going on in a series of indicators going across time, but they are designed to do it in a quantitative and rigorous way.

If one thinks in terms of multi-dimensional cross-classifications, the implication is a lot clearer, at least to me. When you look at a series of indicators measuring something connected with a particular problem, and you are interested in the relationship of those indicators with a variety of demographic variables and how they vary from one point to the other, and if those variables happen to be categorical in nature -- that is you're counting a number of people in various categories -- then the techniques of multi-dimensional cross-classified data analysis tell you what types of data you can present. They may say that presenting certain two dimension cross-classifications is not enough. That will not convey all the information inherent in the whole cross-classification that we all know we can't present. The idea of this analysis is to point toward the things that you want to report so that somebody can reconstruct the whole process in various forms.

3.1 Given that kind of analysis, given sophisticated models, I think the second area of real need is in the development of

innovative social graphics to communicate, to present the results of such an analysis. Although people have talked about graphical presentations for a long time and although back in the 1920's, there was a lot of writing about it, it seems to have slipped under the table when we discovered mathematical statistics. When we teach statistics, it's assumed that everybody knows how to draw a graph. The answer is everybody doesn't know how to draw a graph -- even the people preparing social reports don't know how to draw graphs. They mislabel axes and they misrepresent other things.

The notion of graphics, while it appears simple to everybody at first blush, is really a rather complicated thing. Given a very simple amount of data, there is a whole host of different ways that one can present the data in graphical form. What I would like to do is just try to win you over to this idea by presenting a series of graphical presentations for a simple two by two table of proportions. Normally my pictures look much nicer. These are very crude and for the crudeness I apologize. But unlike Perspective Canada, they are at least in two colors. One of the things about Social Indicators 1973 was -- the more I looked at it, the more I realized the trouble I had in my first reading -- because the numbers from the tables were presented in graphical forms that were totally noninformative in several instances.

My favorite noninformative graph is what I call the

basic bar chart. There are so many different ways and each way you choose to present it, it conveys a different picture. A different picture conveys different information and one goes away with that different type of information from the chart. I'm simply making a plea to my fellow statisticians and to people who are producing reports to be innovative with the kind of techniques you're using and, at the same time, to be careful not to mess up even such a simple thing as the basic bar chart -- because they can be messed up in a lot of ways. We should be concerned about the development of such techniques which are very closely linked with the issue of sophisticated statistical analysis because one needs sophisticated techniques and sophisticated ideas to understand what it is you are trying to present and where the emphasis should lay.

3.2 I think it is fair to say that there is a sense in which the social indicators movement has been a reaction against simple-minded economic analysis and the kinds of measurements that economists have developed. However, it seems to me there are a lot of particularly applicable lessons in the historical development of a lot of the economic measures which we have discussed in the context of social indicators development without making direct links to these earlier discussions and asking what kinds of lessons we might learn. This has a lot to do with the questions of validation and what it is we are supposed to be drawing out with the measures that we have.

We ought to have a keen appreciation of the way in which measurement of aggregate economic phenomena, economic performance, has developed along side of, and in spite of, very elegant developments in theoretical economics regarding the virtual impossibility of measuring the kinds of things which economic measurement purports to do. We have witnessed over the past generation or two a great flowering of aggregate economic measurement most of which at some essential level is invalid in the context of the theoretical constructs of the discipline from which it is drawn. I think it may be useful for people working in social indicators to realize that we perhaps shouldn't get excessively hung up on the question of whether we are able ultimately to measure what we really want to measure or whether what we have to make do with is a collection of information which reveals bits and pieces of some grand multi-dimensional surface that we have in mind.

The one lesson that I think could be carried over to a much greater extent from economics is the idea that we can get by with, we can do a lot of things with, apparently unmeasured concepts. Things like utility, welfare, and so forth by their very nature are empirically unmeasurable.

Another question is, what then do you do with them? How do you draw from them measurable implications? Does the observable thing that you have before you relate effectively to the construct? -- because you start with a construct which

you state clearly at the outset is something that in and of itself is empirically unmeasurable. What we then want to do is to draw out measurable implications of human behaviour in the context of that construct from which we can make inferences about how this very amorphous thing has changed. And you can't do that without continuously asking questions about validation.

That again suggests the bold use of models of multivariate analysis. What I think is being suggested here is that perhaps we should give up on the development of social indicators as collections of indicators -- as sort of hodge podges of rather simple statistical measurements. If what we are really after, after all, is much more complex phenomena, then treat all that material strictly as input. What our social indicator ought to be doing is trying to present some kind of picture, some kind of idea, of how this very complex multi-dimensional phenomenon is changing.

4.0 I never fail to rise to a challenge of an economist. I must say that as someone who has a lot of time and effort invested in the collection of social indicator data, I always want to talk about the issue of social indicators versus economic indicators. I think it's really important that people working in the social indicator area not be shackled by the strictures of economic framework and an economic approach. The people in the social indicator movement ran away from it and I think for very, very good reason.

While it's true that, in many ways social indicators lag about forty years behind the development of economic indicators, I think in several other ways social indicators are years ahead of economic indicators because of the lack of strictures put on it by the economic approach. Economists like yourself keep on talking about theoretical constructs of the discipline. I simply remind you that in the area of social indicators there isn't a set of theoretical constructs that you can get more than two people to agree upon in any group of 100 people concerned with the issue of social indicators.

I am a member of a committee in the United States dealing with social indicators, and we have a rule, and the rule is that every time you have an economist come in the room, make sure you have at least 12 other people to balance the lies.

4.1 In one sense you could be talking about the kind of theory that comes from welfare economics, the kind of theory that is nice and neat and everything kind of fits together and has been experimented with and so on. For social indicators I think mostly what we're talking about is the kind of theory you could pick up right now while you're sitting there that has to do with how you figure out what you're going to do between now and getting back to Lister Hall or wherever you stay. It's just a kind of guide that tells you what is related to what and how things function. There are just whole different levels of it.

4.2 What I am really concerned with is the notion is that too much of the social indicators discussions seem to be have got hung up on whether one can measure these sorts of things we're after. I think we can get an awful long way by measuring things which relate in a well specified way to a construct which may or may not be directly measurable. Shifting our procedure continuously to that sort of approach may get around an awful lot of the problems that we keep hearing time and again. It would have the added implication that we may want to come up with some sort of fancy conventional title for things which we measure which are clearly not direct observations but are constructed out of direct observations. That is really the main point I wanted to make.

5.0 I just wanted to make a comment which maybe already people have suggested. It seems to me the panel is saying something much more fundamental than just something about social indicators. They're really saying something that is very fundamental about thinking and processes of communication -- you can't think or communicate effectively about anything until you form some kind of clear conceptual model for working purposes. To me, this is something much more fundamental than these questions about social indicators. The thing that struck me in many of the sessions was that people have failed in many instances to come to grips with this basic requirement about effective

thinking and communication. They have failed to grasp the necessity of defining precisely what they're talking about and what kind of constructs they are using to think about this thing and to give any information about it. As a result, I think there were all kinds of miscommunications and uncertainties.

SESSION IX: PERCEIVED QUALITY OF LIFE

CHAIRMAN

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PANEL

Tom Atkinson, York University
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SESSION IX: PERCEIVED QUALITY OF LIFE

1.0 When I speak of perceived quality of life, I am referring to the assessment usually by individual citizens of the degree to which their own lives are perceived by them as being satisfied in general, or, in a variety of areas. It is assumed that human beings are a relatively intelligent species able to recognize their feelings or emotions and to communicate them with some degree of accuracy.

1.1 The first question, the first major question, is: why measure this perceived quality of life? Why be concerned with perceptual indicators? It seems to me there are a number of reasons that have not been stated as strongly as they should have in the past.

The first is that the measurement of perceived quality of life provides the only direct measure of the quality of life as the individual experiences it. If accurately and systematically gathered, such data increase our awareness of the failures of our social and economic systems and policies to satisfy the needs of the population, again from the population's point of view.

1.2 Secondly, they allow cross-domain comparisons. Now when I talk about domains, I'm speaking about a specific aspect of social indicators or the quality of life, such as housing, jobs, families, neighborhoods, etc. Now it has been remarked in the past that there has been a surprising amount of consensus in most countries that have been involved in social indicator conceptualization as to what

those domains are. The perceptual measures allow us to make cross-domain comparisons because they use the same methodology, the same format for measuring the dependent variables, that is, the perceived quality of life. It is much more difficult, for example, to compare objective measures across domains. What is the standard we can use to make comparisions between student-teacher ratios in education and numbers of hospital beds in health care?

1.3 Third, perceptual measures are derived from individual responses. They allow us to use nonaggregated data in our analyses and as a result, our ability to identify holes in the distribution of satisfaction across society is greater -- that is, areas in which the perceived quality of life is not up to par with some sort of national standards or aspirations. In dealing with highly aggregated data at the provincial or national level, one simply cannot do that type of analysis in any detail.

1.4 Fourth, perceptual measures highlight specific objective factors which have an impact on the lives of individuals. We are constantly in a quandry as to which "objective" social indicators to look at. Our quandry would be much less pronounced if we were able to determine which specific aspects of their lives individuals assessed as being highly important. In the area of evaluating health, for example, we may be more concerned not with the nature of hospital staff but with other aspects of the health delivery system. We might be able to determine this from peoples' perceptions of the health system and what they perceive as the important aspects

of it. So perceptual measures might have this sort of focusing impact.

1.5 Fifth, perceptual indicators would allow assessment of the effectiveness of social policy and the extent to which policies improved certain conditions in society. I want to stress that, in and of themselves, perceptual indicators cannot in any way lead to the assessment of the impact of social policies. Only if they are involved as part of a very complex design along with objective indicators can this kind of analysis take place.

1.6 All of these reasons have focused on the perceived quality of life as a dependent variable. We have looked at satisfaction as an output of a given system or a given form of analysis. We can also look on satisfaction measures as input. There is plenty of research to indicate the relationship between things like job satisfaction and productivity, between satisfaction with other aspects of one's life and one's mental health. Satisfaction then can become an important independent variable, an important predictor of various behavioral consequences that we might all agree are important to Canada as a nation.

The second question is: are perceptual indicators accurate? I guess my initial response is to say, of course -- after all, we know to a fairly large extent how we feel about our lives as individuals, we share a common language that proves in most cases quite effective in allowing us to communicate the way we feel about our lives and almost any other thing that we wish to communicate

about in a reasonably accurate way.

Research done in the United States and Britain on perceived social indicators is quite consistent in finding that there are stable patterns to people's perceptions of the quality of life, stable clustering of various types of concerns for various types of satisfactions. It is stable across time for the same individual, and it is relatively stable across the nations such as Britain and the USA.

Perceptual measures are probably as reliable and valid as the so-called objective measures which are of unknown quality. The types of disciplinary orientations that most of us come out of are ones that stress notions like reliability in measuring. We spend a lot of time being concerned with those kinds of things, and we have the type of data that allows us to consider and develop various measures of reliability.

If interest in perceptual indicators is coupled with an interest in objective indicators and with an interest in developing explanatory models of the dynamics of perceptual indicators, then there is a potential use for perceptual indicators that is quite considerable in the area of policy and decision making.

I am thinking specifically about research designs which are oriented toward the development of cause-effect relations, and the relationship of perceptual indicators to objective indicators, the relationship of objective indicators to social and economic policy decisions made by governments, to the private sector, etc.

Without this sort of general explanatory model, the utility of social indicators is quite limited.

2.0 What I want to do this morning is two things. First of all, to try and distinguish between values and perceptions of quality of life. There is a tendency in the literature to run these two together whereas I think they are very, very distinct. The second thing I want to do is raise some questions about the extent to which the instruments we have now can actually get at the facts concerning objective factors. I don't think it's important to distinguish values and attitudes. However, I do want to distinguish between those and perceptions of various sorts. The relevant perceptions are of values and attitudes associated with the objective situation, and levels of satisfaction. And I want to distinguish between all of this and an individual's reports. That is the subject you're dealing with, the report that gets out into the external world.

In reports, there is room for many a slip between what a person says and that person's perceptions of his own situation. A person's reports about his level of satisfaction and his objective situation can in a number of ways be very seriously mistaken, distorted, and sometimes simply false. The fact that there is room for a lot of slips here indicates that it is values that we should be studying.

2.1 When you use the term "value" you're dealing basically with an ideology, aren't you -- the way a person looks at things and regards things as relevant, and sort of makes them into some

kind of meaningful pattern.

2.2 I just used "value" in a very general sense, as attitudes in general, attitudes pro or con, etc. A selection apparatus is included in one's set of values but values are things like, "we ought to have social justice", "we ought to have liberty", etc. Not so much the kind of intellectual value apparatus we have -- it's more the moral value or social value apparatus.

2.3 The point I want to stress is that a person's perceptions -- the extent to which he is satisfied about something -- is only one of the things we need to know. We also need to know the extent to which he really is satisfied, the extent to which his perceptions are accurate, the extent to which he really does understand his own situation.

I think that there still are unresolved difficulties in getting at the facts in this area. There are reasons to think that we haven't solved the reliability problems in this area. These are problem areas that arise more acutely when you're studying values which are my particular interest -- they arise less acutely when you study perceptions of values. The reason they arise less acutely is that there is less room for slippage between perceptions and reports than there is between values and perceptions of values. Because there is less room for distortion in the standard report that we always want to rely on, reports are actually better indicators of a person's perceptions of this, that, and the other thing than they are of values or levels of satisfaction.

Food, shelter, and security are very important values and they are also fairly easy to define. Things like social justice, independence, community, privacy, liberty, dignity, equality -- now those are basic human values -- but I defy you in five minutes to come up with a decent definition of what even one of those terms means.

This is important because if we want to know what a person's values are, with respect to justice, we have to know what phenomena he values. When he values social justice, what is it that he values? We have to know that before we start any empirical investigation. Incidentally the fact that we can inter-communicate strikes me as no argument in this at all. We can communicate about some things -- we don't communicate about other things.

The problem of getting at a person's real values, and these are all problems of getting at the real perceptions of situations, is first of all, that different people mean different things by the same term, especially by terms such as "justice" and "liberty".

Second of all, people are very often ignorant of what they value or more commonly, they're ignorant about the relative position of a given value in their whole value set and how important it is to them. It is certainly true they know virtually nothing about what trade-offs they would be prepared to make when they're faced with them. They might have hunches but in fact their behavior would probably be very different from what they say it would be.

Another problem here is that there is an inverse relationship between our level of satisfaction and our perceptions about

the importance of values. The more satisfied we are, the less important we think that value is. That's one place where our perceptions can be very different from the actual structure of our values.

2.4 What I want to suggest is that what we should be doing is looking at some alternative ways of describing people's values. A number of alternatives come to mind. One is the study of behavior rather than the study of a person's reports of his perceptions or values. Another important way of getting at the real facts here is live experimentation. I think that really, the only way you can expose real value structures, and the only way you can expose real levels of satisfaction, is by trial and error policy initiatives and careful studies of how subjects respond to them. I think that's the technique that we will have to use if we want real information about people's values, about people's levels of satisfaction. Experimentation is going to be much more important in this area than survey techniques and soon much more reliable.

3.0 Basically I pretty much concur with the view that most people can reliably tell you how they feel and reliably report preferences, not necessarily values, but at least preferences. In this regard I think it has been shown in psychophysics, attitudinal tests, and personality tests that regardless of what people are dealing with, their reports seem to have some consistency. Just as a quick example, you could go out and very easily collect preference-type data by asking people what they

perceive as more important for their overall life satisfaction -- water quality or air quality? Given powerful and reliable scaling techniques that presently exist, and given the right conditions, we can come up with interval type measurements and at times, ratio type measurements which would allow us to say things like, water quality is perceived as twice as important for life satisfaction as air quality -- this type of thing. In order to accumulate a data base and get something going in the way of social indicators, this is what we have to do. We have to actually get out and try to explicate the most salient aspects of the environment for the given individual.

3.1 I think that once we go out and acquire a data base of perceptual indicators, we can then look at, e.g., causal or other relationships between these and objective indicators that we have already. We could use a whole range of regression techniques to see if there are any predictive relationships between objective indicators and what we could call "objective perceptions". We could then also see if there were any suggestive new types of indicators we could develop, given a number of levels of analysis, e.g., national, urban, community, and individual. We can have people tell us what is important to them in terms of whatever it is we're curious about - perceived life qualities, health standards, housing and things like this. We can then have some basis for formulating policy. I think this will probably allow us to do a number of things that, if not theoretically sound, are at least pragmatically important,

such as being able to compare different geographical areas or population subgroups.

4.0 It is really difficult to take the idea of perceived utility, i.e., satisfaction, and then make it comparable in a meaningful way among different individuals at different times and in different situations. I doubt that there is a perfectly stable perceived value or utility -- i.e., one that lasts over time and changing conditions. Of course we can get a general consensus on what we regard as a pressing problem but we cannot have any faith in its stability.

5.0 I want to correct what's evidently a bad job of communication on my part. The stability in the patterns shown in the British and the American studies reflected stability in the way different aspects of one's perceived life cluster together in terms of how they are evaluated. By evaluation I mean how satisfied people are with them.

These clusterings have been constant across the nation within the population so that young people and old people seem to cluster things in the same way. That is they evaluate similarly their family, their home, their job on one hand, and on the other hand, they evaluate their neighborhood, their house, their community together.

That does not say that the importance of these clusters does not change throughout the population. Only that they are clusters. That housing, neighborhood, and town go together and

that if a person is either satisfied or dissatisfied with one of them, he will tend to have similar perceptions of the others.

The stability is not a stability across the population and across different surveys and across different nations in either the relative importance of these things or in the way they are evaluated. It only says that they cluster together and that's what we're concerned with.

6.0 How do you get this information. I sometimes question whether most people can reliably tell how they feel. For instance, the other day, somebody came up to me on the Sparks Street Mall in Ottawa and said, "How do you feel about the abortion laws in Canada?" Quite frankly, I don't feel one way or the other. I've never even thought about them.

6.1 It seems to me that the person who can reliably tell you how he feels is a person who is, in some sense, dissatisfied with some aspects of his life because he probably thinks about it a lot. If you were interviewing me and said, "How do you feel about your marriage?" and I had, in fact, a very unhappy home and marriage, would I be prone to tell you how I felt about my marriage?

6.2 First, let me respond to that by saying I wouldn't ask you a question like that for the very same reasons you suggest. I just wouldn't have any clue as to what type of information I was getting or how reliable it was.

7.0 One of the biggest problems I think in social science methodology is that we are forced to deal with uni-dimensional

type models with qualities or variables that are not uni-dimensional. I think if we ask simple enough questions, we can at least get a start, get some relationships.

One of the problems with studying any of these things on a comparison basis is that they don't operate independently. By that I mean that if I have a perception that I value something, part of the level of importance that I will assign to that is its importance relative to other values. That immediately destroys the possibility of studying the values independently and arriving at a genuine assessment of their importance.

8.0 An obvious distinction can be brought out by the comments about your values concerning abortion and how much you know about those values, or what your beliefs about those values are. You might not know if you have any values at all and yet nevertheless have them. Now that distinction seems to me quite obvious. Likewise there is the distinction, although it's a less important one, between the perceptions of his values -- if you like, beliefs about his values -- and what he says about his values. You can tell lies about your values or misdescribe them and that shows your reports can be different from your perceptions.

9.0 Let me make a couple of presumptions that I've gathered from the literature. The first is that people are not very good at specifying, in response to a direct question regarding their values, what their values are. They simply don't think in abstract terms of that sort. On the other hand, their values often condition their

responses to specific phenomena, political and social, and they are able to make responses to questions about how they think, for example, the government should spend its money in a given area. The data from these particular kinds of measurements could be used to infer values. The individual himself may never be able to tell you that he values personal security but if he says that the government ought to start putting about ten times as much money into crime prevention as it now is, you might reasonably come to that conclusion -- and at the same time, he also says, in a sort of trade-off situation, that they should put less into social welfare programs. You might reasonably conclude that he values personal security more than he values equality.

10.0 I think we have demonstrated that there is some consensus on the necessity for empirical studies to find out if perceptual studies are in fact very good; also, there seems to be a basic mistrust among some individuals concerning measurements of the perceived quality of life. I think this mistrust exists even between researchers, and if it exists there I am certain it exists between policy makers and those who would provide quality of life information, and until more studies and more persuasive arguments are provided, this mistrust will continue.

SESSION X: THE ROLE OF THE ACADEMIC IN INDICATOR DEVELOPMENT

CHAIRMAN

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PANEL

Betty Macleod, Ontario Institute
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SESSION X: THE ROLE OF THE ACADEMIC IN INDICATOR DEVELOPMENT

1.0 I want to put forth what I hope can be used as the frame of reference for discussion about problems in developing any social indicator system. As general areas containing most of the problems, I see the selection and ranking of concern areas, the adequacy of statistical theories, and limitations which need to be imposed respecting the variability and use of regular and continuous trends of the political and financial exigencies.

I propose then to approach the question of the role of the academics in the context of these categories indicating where the academic can probably make the most important contribution and where it would tend to be a lesser one.

1.1 First of all is the selection and ranking of concern areas. Now the discussion of this topic came up originally at a conference in Ottawa last November which had the topic of the future development of Perspective Canada which as you are probably aware is a compendium of social statistics.

1.2 Now turning to the political exigencies... I am very anxious that I make myself clear on this issue. We're all functioning with a particular frame of reference whether we know it or not. I think that the people in government circles are influenced by a particular set of political pressures which are not explicit. There are things that you will get in the habit of not doing because

you know that it won't be welcomed. We have similar paths in academic circles incidentally, and every circle has strictures which you recognize if you want to stay in that path of life. I also suggest in the political arena that there could be difficulties when the results of an analysis are potentially embarassing. For example, if a comparison were to be made between infant mortality of the general Canadian population and the Inuit population, and if this appeared side by side in the government format with projections and implications that we're going to get worse instead of better in the future, there might be some reticence on the part of higher levels of government to publish this sort of thing or to let it outside the restricted framework. I think these implicit pressures exist and the only effective way for them to become right is through the role of the academic in that he or she can cross those lines and say things that aren't particularly appreciated, perhaps, but that need to be said.

1.3 In the past when statistics have been developed and choices have had to be made in terms of limited funds being available, the economic indicators were the ones that were developed most adequately. Probably one can explain this in terms of vested commercial interests being able to push the concept that monitoring of these kinds of data is more important to the economy as a whole and to progress than perhaps some of

the social indicators. I think it's the politicians who have to make those choices and it's only through putting forward our ideas as academics that we can influence politicians to incorporate other initiatives for data that will be more along the social indicators line.

2.0 In speaking about the role of the academic in indicator development, I want to stress that in some ways, the academic has an unique role to play because unlike other researchers, he can be concerned with the light-bearing aspects of knowledge rather than the truth-bearing aspects. The concern of the academic can range over important questions without being preoccupied with the immediate policy concerns. He can afford to ask fundamental questions. He can afford to take a radical approach.

2.1 As we all know, in all types of research there are numerous questions, complex questions, begging to be asked but only questions in which the establishment or ruling classes are interested are generally asked. An academic who is not willing to prostitute himself operates under extraordinary constraints. One of them is his lack of funds -- funds for research are often not available. Journals will not publish his findings. Publishers will not publish his book.

2.2 In discussing social development there has been a tendency to equate social development with economic development just as there is to look upon social development as being

concomitant with economic development. Some try to measure social development by finding out the number of telephones per capita, the number of cars per capita, the number of newspapers per capita and so on, and then come to the conclusion that social development goes hand in hand with economic development. The academic who is willing to make a radical approach would reject these approaches as to ally unsatisfactory. Academics should not be daunted by certain types of researchers who tell them that social development indicators cannot be measured. In discussions of the measurability of social concepts, there will always be a number of objections raised by the person with the vested interest who uses this as a device to prevent effective research from being done. I don't think the measurement of social development is any more difficult than the measurement of economic development. In fact I resist the hypothesis that says economic development can be measured but not social development.

2.3 We have tended to measure economic development in terms of the national income and in terms of the rate of its advance. On this basis, we classify countries as being efficient, economically efficient, if they generate a high rate of growth. This I think is a fallacious view and in many ways, I think it is dangerous. We seem to think that in order to satisfy a want, we should go on increasing our income. But unfortunately, as our incomes increase, our dissatisfactions also go on increasing,

and therefore we find ourselves in the comical position of a dog trying to chase its own tail. We need a radical approach to the economic theory itself before we can come to the social sphere.

I would suggest that you should reject the concepts of national income and its advance as a measure of the adequacy of economic performance of countries. Many of our problems like inflation, for example, are almost a direct result of the extreme inequalities that prevail in our society. We should focus more attention on reducing inequalities, provision of employment, provision of better health services, better education facilities, and better house insurance and amenities for all members of society. These should be our major concerns.

We do not have pure air to breathe. We do not have pure water to drink, we don't have uncontaminated food. If you look at facts without the distorting lens of prevailing concepts and preconceived notions, countries like the United States and Canada should be ranked among the poorest nations of the world.

The model of the developed countries as the ideal which other poor countries should try to approach is basically an absurd and irrational one, and should be totally rejected. This is why social development indicators become very, very important. We need to devise measures by which we can assess and reduce inequalities, and produce a society where human beings are contented, where human beings will not be selfish. If you introduce into

orthodox economics the proposition that if you give part of your income to your fellow man and his standard of living goes up, it is entirely possible that you will reach a higher level of satisfaction simply because you now know that your fellow men are also better off. You will find that orthodox economics cannot handle such concepts. Therefore, we need a radical approach both at the economic level and the social level.

3.0 One of the first things I'd suggest is that the involvement of academics in the whole social indicator movement is justified if for no other reason than many academics spend a lot of their time trying to define subject matter.

3.1 There are a series of things I would like to point out -- specific recommendations I would make. Personally, I think we need a more systematic approach to try to establish the needs of the primary and the secondary users of social data. The primary users may be academic, they may be government, they may be industry, they may be any other group but I think that the day has long since gone by where people can do research simply for their own sake and their own use. What we need is a more systematic approach to try and determine how we should do that and it can no longer be simply a by-product of the accounting or administrative routine.

3.2 A second procedure I think we should use to try to facilitate the role of the academic in this area is the development of information retrieval systems which would relate to the information

needs of government, industry, university researchers, etc. Many people still believe that establishing a data bank will magically accomplish the business of information retrieval and also the business of definition of social indicator work. But my feeling is that they are just not the same kind of activity.

It is important that we know where we can get information and it's the shape of that information that determines how useful it will be. There are many sets of data that are available that we should be able to relate to. One group that is providing information on this is The Canadian Council on Urban and Regional Research. I think this is a useful job because it makes this information available.

3.3 A third kind of technique I think we should use to facilitate this coordinating process, and the hardest one, is to decide what is important. I think what we do with respect to a cooperative effort, what we do with respect to information retrieval are implicitly predicated upon decisions as to what is important. For example every time I look at Perspective Canada, I see certain tables in there that I would argue by definition are important. For example, statements and tables on the distribution of income in Canada are important. But if we have these three things working for us, systematic approaches, information retrieval systems, and definitions as to what is important, these will be keys to the interface of the university with its surrounding community, be it government, private industry, or whatever,

as well as the key to progress with respect to social indicators.

4.0 I would now like to look at some of the practicalities of actually involving academics in indicator development. My personal view is that this is not going to be all that easy. I think that individual academics in their work have obviously observed gaps in the standardized measurement of popular variables, and I think as individuals they will probably develop preferences for certain standardized indicators. But I think development of these standardized indicators by academics will generally be irregular at best, because coordinated linkages between academics on systematic development is generally less than satisfactory. I think more typically academics tend to be engaged in individual efforts with little backtracking to the more basic measurement techniques. Because of what academics very haughtily view as the pure nature of their research, leadership in indicator development is more likely to lie with the applied researchers who are allied with policy making bodies.

Initially I think that academics will be interested because everybody has the gut reaction that we should probably have more standardized measures of some of the more popular and more widely used variables. But in general I doubt that there will be much leadership in a coordinated sense. So I think that when we are looking at academics,one has to take a very pragmatic view. There will be an initial enthusiasm of "let's do it" and so on. I think that many researchers will back off when they

see the payoff is less than what they might have envisaged but the core group that remains as a residual will attract graduate students and then the pool will begin to expand, and then, hopefully, there'll be a mental set which will be more receptive to the actual development of indicators.

5.0 From my point of view as somebody working in the civil service, there should be more response on the part of the academics in the universities to try to find out the needs of the policy makers. On the other hand they should also be trying to look at the whole question of the direction of social indicators in a very philosophical sense in trying to develop a framework .

5.1 I don't see any reasons why a civil servant should expect the academic community to coordinate itself as to its research interests, intentions, and directions any more than academics should expect the various bureaucracies in Ottawa to do so. There are very good and rational reasons for having independence in research, with people with various backgrounds, training, and interests working on similar sorts of problems, not knowing together that they are working on those problems. That is the most fruitful way to proceed because one is allowed to proceed along one's own intellectual inclinations and as far as one's own interests and capacities go.

5.2 If you're doing your job well you're pursuing as far down the line all the interesting questions and you start running into

references. You hear at a cocktail party about X,Y or Z who is doing the same thing. You see a reference in a footnote or at the back of a paper that such and such is doing such and such. It's a waste of money to have large coordinated systems of information as to what anybody is doing anywhere. It's always been a waste of money because they are usually anywhere from three to ten years behind the times and the informal mechanism works far far better.

6.0 I've been very surprised that people cannot give something more conclusive. It is understood that academic diversity should be expected, it is natural. When it comes to social indicators, it is not a question of just research. When it comes to social indicators, you give to it an outlook -- you involve yourself, you commit yourself. It's not a question of jumping on the bandwagon. The role that the academic has in indicator development is to take it as an issue.

6.1 I see the role of the academic in indicator development much as I see the role of the academic in almost any other area where one is involved in developmental work or problem solving. It's quite impossible to acquire expertise in the total range of knowledge raised by these problems. We have to rely on the academic as a knowledge resource. We have to be able to go to academics individually or collectively and say, "Look I'm working on this problem in this area and in practical terms, there is no way I can follow the classic academic thing and do the work

that could be done. It's going to take me six months because I've got to get on with the job. Can you identify for me the key issues which I've got to know about to make sure I stay on track while I'm working toward this problem or towards the solution of this problem?" This is the key role for the academic.

That can save me an immense amount of time, and to someone who is concerned very much about achieving a specific goal or solving a specific problem, that can be tremendously valuable.

7.0 I suspect that if anybody wants to get a compendium with information on social statistics, the only way they're going to get it is to hire a consultant to do it for them.

7.1 There is plenty of work going on.

7.2 But you don't have the sort of consulting sociologists and social statisticians the way that you have other consultants.

7.3 My experience is that commercial consultants are brokers who then proceed to exploit the academics as the academics have direct contact with the agencies concerned.

7.4 I think generally academics are pretty good at that too.

8.0 One of the things that has concerned me is the possible use of social indicators as social control mechanisms. One of the things I would hope that at least some academics are addressing themselves to is this whole question of what these data and facts are being used for and to beirg critical from their position where we public servants can't be. They might suggest alternate

uses for the data and develop the philosophical and ideological views within which indicators are developing and suggest whether these have been abused by government.

9.0 I still believe that there is a need for coordination in work on social indicators and would propose a committee be created within the Social Science Research Council to give a certain direction to the study of social indicators.

9.1 I don't see why we should be adverse to the idea of having some type of formal mechanism through which policy makers could become acquainted with the type of research that goes on in different fields. I know that in all universities towards the end of May, every academic is required to submit to the administration the papers he has published in the different fields and unpublished monographs which he may have and the research which he has in progress. Every university at the end of May has this information available.

If we create some kind of central agency to which this information is submitted and then classified, then by September of each year a register could be available.

9.2 I have two suggestions. One is that there should be some kind of register created by requiring universities to submit to Statistics Canada books and other documents that have been published, as well as unpublished monographs and descriptions of research in progress. The second suggestion relates to the fact that there are considerable lags between the time that a paper is

in draft form , to the time when it is accepted for publication, to the time when it is published. Assuming that people working in a field should be acquainted with the ongoing research, I would suggest that the National Library have a department to which all unpublished papers can be submitted and properly catalogued.

9.3 I think it's very important for us to realize that although there may be some date by which those of us in government must get information in the field, there is a broader need of the general public, the need to get some measure on how well government is performing and how we as a society are performing. I personally feel that the death role for an independent researcher and independent academic is to get tied too closely to government.

9.4 It is possible that the academics are not always very suitable people to deal with real world problems in a sense that they tend to lack the goal orientation. They tend to lack the consciousness of practical deadlines and so on. I don't think you can escape the fact that those of us like myself who are working in government are faced with problems that actually await the creation of policy. I think the role of the academic is to prevent us getting into situations where a judgement may be unwise or where we may not have examined all the potential impacts of the thing we're doing.

9.5 We seem to be focusing on two extremes. We tend to be focusing on the academic and his scholarly activity on the one

extreme and on the other, we have the author and his data bank. There is a very important thing in-between -- developmental activity as opposed to research or as opposed to control of production. I am not concerned about some kind of vague concept of doing research on social indicators. I'm concerned with finding measures to meet some very well-defined practical goals and I need all the help I can get. I need it from the data bank, I need it from the academic researcher.

SESSION XI: FUTURE DIRECTIONS FOR SOCIAL INDICATORS

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SESSION XI: FUTURE DIRECTIONS FOR SOCIAL INDICATORS

1.0 First of all, I've been asking practically everybody I've talked to at the conference to tell me what they mean by social indicators because I discovered early on that different people meant different things. So I'll begin by saying what I mean by social indicators and that is simply: time series statistics which measure changes in some of the important aspects of social systems. Social indicators and social accounting systems generated a lot of excitement in the 1960's and at the same time they also generated a lot of false hope and expectations. For example, people expected that social indicators were going to provide them with yardsticks for evaluating social programs, and we've now learned that program evaluation is a much more complicated thing than just having good measures of social change -- probably the best way to do it is through social experimentation. People also expected the production of a system of social accounts parallel to the system of economic accounts; now we recognize that we just don't have agreement on a model of the social system. We don't know what the proper variables or their interrelationships are in order to set up a system of social accounts like the economic accounts.

On the other hand social indicators can do some things, and I would like to talk about just a couple of examples of the useful results of research in social indicators. Such research has stimulated

a revival of: quantitative-co parative measurement work on such topics as prejudice, crime and learning, and the development of some models of social processes. The fruit of these efforts will be more directly a contribution to the policy maker's understanding of his problems than to their solution. It won't give him the answers but it will help him to know what the problems are.

We see work on social indicators as falling into two categories: descriptive measures of social change and the reporting of those descriptive measures, and more analytical study. The descriptive measures answer the question, "what happened?", and the analytical studies answer the question, "why did it happen?".

On the descriptive, reporting side, a report came out about six months ago from the U.S. Department of Labor which was called Job Satisfaction: Is There a Trend? This report addressed the conventional wisdom which said that young people are much less satisfied with their jobs now than they were 25 years ago. This report shows that this simply is not true. Younger workers have always exhibited less satisfaction with their work situation than older workers, and it's the same now as it always was; the report is a good example of a hard look at time series data which simply reports what change has occurred and in this case what change hasn't occurred.

An example of an analytic study is work by Lyle and Duncan and also the work by Featherman and Hauser on the measurement of occupational mobility, and measures of the contributing factors to occupational mobility such as family background, race, education.

Their work provides enlightenment to policy makers concerning why certain changes are happening in society, and this gives them the information to know how to influence the ultimate changes.

At SSRC, we've developed the following guidelines -- kind of a research agenda for future work on social indicators. It's not supposed to represent a grand theory or an integrated design for work on social indicators, but it's a kind of workable agenda that we think might be productive. First on the list is a preference for empirical research -- actual time-series research -- rather than for more works that expose theories, taxonomies, and speculation about what social indicators should be. We sense that the daily resources for the development of worthwhile time series exist now -- especially the long-time, large-scale survey data collected by the federal government in such programs as the Current Population Survey, new criminal victimization surveys, the decennial census, the annual housing survey, the national assessment of education progresses etc.

We also want to emphasize the application of advanced analytic techniques to the best time series data available. By and large, the people who are in contact with the data are not in command of the techniques, and we would like to see the two brought together, either in the federal agencies that produce the data or among academics who now have the statistical techniques.

There is also a preference for the probability-sample survey for pragmatic reasons: you can get more out of sample survey data. And, with a continuing sample survey, you have greater control

over comparability of the data at different points in time.

Another emphasis is on replicated cross-section surveys rather than on longitudinal or panel studies because there are more perfect techniques for analyzing cross-section surveys than there are for longitudinal or panel studies; the latter have a lot of very complicated problems attached to them.

There is also a preference for a national focus rather than a local or global one; that's also from a practical point of view because most of these data are collected in federal programs, where the money is, and consequently, most of them are national samples, which don't always provide interesting data at a local level.

The last point is to stress a broad view of the processes of social change rather than to focus on only those components which can be manipulated by public policy. While that is an important concern, it's not the only concern for social indicators research. Those are the points that we came up with on our research agenda.

2.0 I don't have very much to say at the outset because I have to admit to being pressed into this at a relatively late date. The one notable thing about social indicators work in Canada has been the very slight involvement of non-government central organizations, and, in particular, the very s ight involvement of the Social Science Research Council of Canada. This is in considerable contrast to the United States, Great Britain and a number of other countries where the national organizations of social scientists have taken a very active role in promoting the development of social indicators.

A case can be made for establishing some kind of focus, some kind of locale in which information about research on social indicators is collected, to which individuals, especially individuals working outside of government can become attached in some way. Whether that should be an organization such as the Canadian Social Science Research Council or some other kind of centre is not clear.

There are great advantages to having government agencies do research in areas like this. They generally find it much easier, whatever protests I may hear, to mobilize funds and so forth than private organizations. Nevertheless, I think a great many of us are committed to the notion that the gathering together of interested individuals to pursue research ideas in universities and in private research institutions has considerable value in itself. I'm convinced that organizations like Statistics Canada and other policy departments of government would also find it convenient if they had at least some identifiable institutions to turn to in the knowledge that there was there, collected on a reasonably continuing basis, a major part of the Canadian expertise and activity in this area.

3.1 The comment that you should delve into areas which either are not or ought not to be a concern of government is very important because there are certain areas which are closed to government avenues.

3.2 My point was that we ought not to exclude, from the things that we examine, factors in the social system which have absolutely no chance of being manipulated by public policy -- not that

we ought to include lots of other things that government is afraid to examine. Social indicators are not the sole problems of policy-makers and there are lots of other interesting things to look at -- interesting aspects of social change that can be measured, and that are worth being measured, even though we do not now have the social machinery necessarily to do anything about it.

4.1 Let me voice one worry or concern. I have a funny feeling that a lot of people don't seem to realize that we have, at least in my opinion, reached a fairly fundamental plateau or turning point or rest point in social indicators development. And the problem is that the social indicators movement,as you all know, grew out of the dissatisfaction with GNP; it grew out of some desire of the sociologists to get in on the good life now that the economists have solved all the problems which they could solve and have gained too much power, and therefore we wanted to measure the social amenities and niceties. And government was then prepared to spend vast amounts for social research and development of social statistics, etc. Unfortunately, in the last two or three years the millennium has receded into the background again and in terms of economics, we seem to be involved in all the old economic worries of scarcities and business cycles and unemployment. All of a sudden the government isn't really that interested anymore in the brave new world of tomorrow and seems to be concerned with somehow solving the problems of today. That, of course, has implications for funding procedures.

Governments have had common human reactions and I am getting worried that at some stage they may say, "Well, you know, thanks but if you can't deliver, we'll shut off the life line".

4.2 The previous speaker waved a red flag and seemed to be telling us that, because there was an economic crisis, we were in the midst of inflation and stagflation and governments were worried about economic problems, and we couldn't really be too optimistic about the prospects for making any progress in the development of social indicators. The implication seemed to be that this was a kind of luxury which only the affluent society can afford. When you think you've solved your economic problems, then perhaps you can begin to pay some attention to social and social-psychological issues.

It seems to me that this is a very wrong perception of the situation. I would like to suggest two areas in which a great deal of work needs to be done in the area of social, and, I would say also, social-psychological indicators, and they are: (1) the question of inflation and stagflation on the one hand, and (2) the impact of geographic mobility, on the character of contemporary advanced industrial societies; that includes both immigration and migration.

Now to take the first one, the question of inflation -- of course, it has always been perceived as an economic problem. And everybody turns to the economy and expects the economists to be able to provide the policies which will somehow or other deal with our present problems of inflation and stagflation. I would contend that

to a very large extent these problems are indeed sociological and social-psychological -- that the definition of the situation by both producers and consumers is a very important variable in understanding the dynamics of the situation.

In the absence of data from social surveys or other sources -- all the attitudinal dimensions and the way in which people do perceive the situation and define their expectations for the future -- we're not going to be able to develop policies that will be effective in dealing with that kind of problem.

In the area of geographical mobility, we have a government that was engaged in the exercise of producing a so-called Green Paper on immigration with an absolute minimum of relevant research going into it. Those of us who were invited to prepare consultant's reports in connection with that particular exercise were given approximately six weeks to produce reports. There was then an eighteen month delay before they were actually published, but this was the kind of perception the government had at that time -- of all that would be needed to produce the relevant background of information...

My association with Statistics Canada as an academic stems over the last fifteen years and over the whole of that time, Statistics Canada's position has been: we are only concerned with hard data -- demographic data, economic data -- we don't want to get into the business of attitudes, opinions, all this kind of soft data has nothing to do with us -- it is inappropriate for us to explore those areas

at all. I got that answer in 1960 when I wanted to work with them on the conduct of a survey. I've had the same sort of answer ever since.

5.0 I guess the Canada Council's role has been demonstrated by the fact that this conference has been held; part of the financing has come from a Canada Council Conference grant. I made this a starting point because the conference grant is one of the available tools we have for the furtherance of work in a discipline.

Many of you are familiar with the research grant program run in the humanities and social sciences and the various extensions of that program. Such grants are generally made for a period of one year with a possibility of renewal although longer-term projects may receive extended grants for a period of two years with the possibility of a two year renewal and a further one year renewal, for a total of five.

We also have a program or negotiated grant which is to support research which is likely to generate more than one project and to have a good deal of spinoff in the form of the collection of records, archives, data banks and so forth. This negotiated grant is intended for the team with at least two principal researchers who are in an eligible institution. The full details of this rigamarole are available in the Canada Council office.

I should mention aid to publications. We do have a program of aid to the publication of learning periodicals. The other side of our publication aid concerns the block grants used for aid to publication of scholarly manuscripts.

6.0 I have at least one point that I would like to raise, and that is with regard to accomplishments in the area of social indicators in this country by academically based researchers. If we look closely at the situation, I think it is fair to say that for all of the interest expressed and the occasional flurries of activities, damn little has been done. Now that's partly because such activity is, or has been, through funding, very closely tied to government agencies. People have worked on very specific contracts through government agencies so that much of the academically based research in social indicators in Canada appears as essentially government research. If there is a seriousness in this country about pushing this area any further, one of the points, I think, that has to be high on the agenda is the assembly of some real evidence of work that has gone on. The assembly of a volume, a collection, that demonstrates that we have people -- if we can demonstrate that -- capable of doing this kind of research and capable of accomplishing things in it -- that's probably the single most-needed thing at this time.

7.0 I just wanted to make one point that I feel has to be continually hammered home lest we lose sight of its importance. I see a surging empirical predisposition here, and this is to be both lauded and criticized. At a point where initial frustrations are taking their toll among researchers and funding agencies, and where the difficulty of the task has become apparent, there is the danger of ignoring the fundamental and conceptual issues in favour of good

old social research. I'm not against social research but I'm very pro doing conceptual homework. Which is just to say that this is the worst of all possible times to give up thinking and theoretical work. The movement began with the assumption that we knew clearly what we wanted data for, and just how it could be used to accomplish certain ends. We now find this whole area unclear and unstructured. Getting this clear is still something we have to do if the production of social statistics is to find a market or to be able to meet new exigencies that will doubtless arise. Governments have a particular problem in that paying academics in universities to do their thinking for them has not always proved very fruitful. If they take measures to snuff what creative spirit exists within their own walls by adopting an empirical tunnel-vision, they will face the prospect of being unable to mobilize sufficient internal grey matter to be capable of rethinking or reforming anything, let alone evaluating external research.

7.1 I think what we're against is spending an awful lot of time doing nothing but thinking about what is the very best way to measure something, and wasting all that time when you could be measuring. But thinking is certainly something you have to have.